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New Jersey City University
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Although mortgage choice is complex, taking into account various uncertainties, constraints and risks, there has been surprisingly little research conducted from the viewpoint of the homeowner. This paper provides a summary of the literature concerning mortgage choice in five broad categories reflecting the main decisions facing a mortgagor including the mortgage as an investment portfolio decision, the choice between fixed rate and adjustable rate mortgages, the selection of a mortgage term, the option to refinance a mortgage, and deciding between contracted mortgage rate and mortgage point combinations. The review of the literature indicates the importance of an educated consumer, and therefore it is essential that financial research continues to identify and provide guidance on optimal mortgage decisions and that consumers receive appropriate advice to navigate this potential financial hazard.

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Health insurance coverage is an essential component of a financial risk management strategy. Seminal theoretical perspectives regarding the consumer decision to obtain insurance have informed research into the causes and consequences of being uninsured. This paper reviews the empirical evidence from a rational choice perspective. Research suggests that being uninsured is associated with greater difficulty accessing medical services and a higher probability of choosing to delay or go without needed medical care. In addition, being uninsured is correlated with higher reports of other financial difficulties including being unable to pay for housing, transportation, and food. In some instances, families have needed to file for bankruptcy as a result of unmanageable medical expenses. This review shows that researchers, financial advisors, and consumers can all benefit from a better understanding of the complex array of private, public, and self insurance options available, as well as the consequences of being uninsured and the role health insurance plays in both improving health and managing financial risk.
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Jean Lown, Professor
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This article provides financial practitioners and scholars with an overview of retirement preparedness in the U.S. along with recommendations for improving retirement security for Americans. The focus is on the 78 million baby boomers but contains implications for subsequent generations. Despite evidence of a retirement funding crisis, some researchers conclude the problem is overblown. Researchers differ on how to measure retirement income adequacy, whether to include and how to project health care expenses, and the role of housing equity, but agree on the groups most at risk. The consensus is that only half of baby boomers are financially prepared for retirement; one-fourth face challenges and the remaining one-fourth are at-risk of poverty. Online retirement planning calculators and some studies may provide an overly optimistic picture of the boomer’s future. Retirees will need assistance in managing their assets during retirement. Recommendations for financial professionals, educators and individuals are provided.
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✓ Planning Tools and Techniques
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✓ Book Reviews and Professional Opinions and Tips
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Anxiety seems to have gripped a generation of baby boomers faced with funding retirement in a world of uncertain investment prospects, health care expenses and longevity. It is easy to see why retirement is starting to look like a journey into the abyss. In this final special issue on reviews of personal finance literature, contributor Jean Lown digs deeper into the unique predicament of baby boomers as they face retirement with a new set of challenges not experienced by prior generations who anticipated a greater degree of security.

My own research suggests that baby boomers, despite their anxiety, have more wealth than any generation that has ever lived on this planet. This is good news. The bad news is that they are going to need it if they plan to retire at ever-earlier ages in an environment of depressed returns to investment capital and a near certain decrease in benefits from Medicare and Social Security.

Boomers are also a heterogeneous group. While the wealthiest are more than adequately prepared financially for retirement, the middle class may be particularly vulnerable to the changes in retirement income funding that have evolved over the last quarter century. The shift toward flexible defined contribution plans has benefitted primarily those who have the means and ability to build wealth in tax-sheltered retirement vehicles. Many less-educated workers have seen employer pensions disappear and have less experience navigating available options for retirement saving, adding to the psychic costs of setting aside income for retirement.

Transferring the burden of retirement saving to individuals inevitably benefits those who are able to build a nest egg not subject to political risk (Social Security) or firm-specific risk (an employer pension). We can choose what to invest in, and we can take our nest egg with us from one employer to the next. It is hard to argue that modern retirement saving options are less efficient than those of the employer pension era.

The problem is effectively transferring the management of retirement assets. To do so would reduce the risk that less knowledgeable employees will either see too low a return to fund retirement, or choose investment products within qualified plans that are too expensive or inappropriate. Employees of all incomes and investment experience could benefit from transferring management of retirement assets to a planner or advisor who will look out for their interests.

The process of building a retirement portfolio that maximizes return given the objectives and risk tolerance of the individual requires an investment in financial knowledge that can most efficiently be delegated by a worker to a financial professional. Someone once said to me that the financial
planning profession has little value because most information can be found in books or on the internet. In fact, most information about accounting or law or medicine can be found on the internet and in books. All it takes is the education needed to interpret this information and the time to collect it. Is it efficient for workers to face the decision of how to fund retirement on their own?

It is my hope that making an appointment with a financial planner to initiate a retirement plan will become as natural as making an appointment to get a physical. Once we begin to face the logic that personal financial planning can be reliably and efficiently delegated to a professional, we can begin to address the anxiety that comes with increased responsibility for a task that many are ill-equipped to deal with alone. As a profession, we must also be committed to finding ways to provide our services to those who most need our help. Employers and plan administrators need to be actively involved in working with planners to ensure that employees are able to make appropriate retirement choices. Employees must recognize the consequences of failing to save enough, as well as failing to make the right investments.

The good news may be that each successive generation is saving more for retirement than the last. A review of the most recent consumer finance data collected by the Federal Reserve reveals that Generation X is saving even more for retirement, and putting more of it in higher-yield investment assets, than baby boomers when they were the same age. And younger baby boomers have saved even more at the same age than older baby boomers. As successive generations recognize their responsibility for funding their own retirement, they seem to be responding to the challenge and at the same time providing new opportunities for professionals to help manage their growing investment assets.

Michael Finke,
Guest Editor
THEORIES OF THE FINANCIAL PLANNING PROFESSION

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ABSTRACT

Although it appears that a theoretical body of knowledge for the Financial Planning Profession has always existed, until recently theory was not often explored as such, and there was no written common understanding or agreement on the theoretical basis of the financial planning profession. A survey of the financial planning literature over the past 50 years was performed, and certain basic theories from many existing disciplines were identified, although their application in personal financial planning has sometimes resulted in modifications. The theories identified from the literature were compared with the financial planning educational topics list of the CFP Board of Standards and the core financial planning process was explored in detail. A definition of financial planning as values and goals-driven strategic management of the client’s financial resources was fashioned and the financial planning process as the strategic planning process applied to the financial and economic resources of the person or family was also defined.

Financial planning has matured and grown more technical over the past decades. Although it appears that a theoretical body of knowledge has always existed, until recently theory was not often explored as such, and there was no written common understanding or agreement on the theoretical basis of the financial planning profession.

In the study that follows, it becomes clear that the planner is using analysis of financial resources, internal and external environmental constraints and theories from many disciplines to devise a financial strategy. Literature in several of these disciplines was explored to identify theories that appear relevant to financial planning. A definition of financial planning as values and goals-driven strategic management of the client’s financial resources was fashioned, and the financial planning process was identified as the strategic
planning process applied to the financial and economic resources of the person or family. The financial planner emerges as an outsourced CFO for the individual or family enterprise.

First, those financial planning articles that discussed financial planning theory per se over the past 50 years were examined chronologically and the theories suggested by those authors identified, articulated and compared to what is available in the financial planning literature. Next, the important core financial planning process was analyzed separately. Then the planning literature for each of the nine categories of financial planning expertise as defined by the CFP Board of Standards in its educational topic list (2005) was explored to identify, insofar as possible, the theories that contribute to that category.

**Articles Concerning Financial Planning Theory per se**

Few articles were found that identified themselves as discussing financial planning theory. The most comprehensive article appeared in *American Economist* (Altfest, 2004). Altfest traces origins of financial planning theory to Modigliani, Becker and Markowitz (among others) and to the classical economics of choice. Altfest pointed out that in the first half of the twentieth century, some economists started to apply classical economic theory to the management of the household, using the term “home economics.” Milton Friedman, in his Nobel Laureate autobiography, says this concerning his work in 1937:

> The catalyst in combining my earlier consumption work with the income analysis in professional incomes into the permanent income hypothesis was a series of fireside conversations at our summer cottage in New Hampshire with my wife and two of our friends, Dorothy S. Brady and Margaret Reid, all of whom were at the time working on consumption (Friedman, 1976, p. 11).

Margaret Reid and Dorothy S. Brady are considered to be two of the leaders of modern home economics. In the 1930s, home economics started to focus less on domestic arts and more on consumption economics, although there are examples of financial planning in earlier home economics literature as well. Like them, many home economists were either professors of economics or government economists (Grossbard-Schectman, 2001). Research in the Hearth archives in the Cornell library reveals many examples of early literature on financial planning. This early literature, despite the economics background of its authors, was largely pragmatic and did not concern theory.

This background resulted in the long-standing inclusion of advice on consumer economics in Department of Agriculture programs, and financial
planning programs in the human sciences departments of universities. Yet, financial planning as the profession is currently seen, traces its origins to a meeting of financial services executives in Chicago in 1969. Thus, there are two traditions that contribute to financial planning today: one from the consumer economics field, and the other from the finance and financial services field.

**Becker and Decisions Within the Family**

Gary Becker taught at Columbia from 1957–1968 (Becker, 1993) before returning to the University of Chicago in 1969. He was a theoretical economist who applied economics to decisions within the family (Becker, 1974a, 1974b, 1988, 1992), calling it the New Home Economics. While Becker and the original home economists both looked upon the family as a production unit as well as a consumption unit, Becker was primarily concerned with the impact of family decisions on macroeconomics and national policy. The original home economists, however, in addition to conducting government studies on cost of living and expenditures, applied their chosen field of economics as a microeconomic exercise, seeking to maximize production and make the economic processes more efficient and profitable for the managers of that family.

As noted by Altfest (2004), Becker added richness to the concepts of resource allocation within the family by his work on the allocation of time in non-work activities. While at Columbia, Becker (1965) postulated a basic theoretical analysis of choice that considers the cost of time on the same footing as the cost of market goods. He recognized that using the time of a member of the family was using a resource of production. He envisioned the family as a small factory that combines “capital goods, raw materials and labor to clean, feed, procreate and otherwise produce useful commodities” (Becker, 1965, p. 94). Since Becker was an economic theorist, in those early years he almost never did empirical work to confirm his theories, yet was quite definite in his ideas about the effects of decisions within the family on the national economy and society.

Later Becker recognized that decisions within a family are often not unanimous, but are negotiated among family members on the basis of sometimes conflicting aims and cultural altruism (Becker, 1992). For instance, he claimed that the higher earning power of women outside the home was responsible for a decline in the family, since higher earnings by the woman made the choice to have children more expensive and the cost of her labor within the family higher. He considered the gender division of labor essential to the stability of the family (Becker & Tomes, 1986).

Becker’s theories have influenced financial planning in several ways. For example, the economic value of the work of the homemaker, and conse-
quent need for life insurance on the homemaker who does not earn a wage, originates in Becker’s ideas on time as a resource. His work on human capital and education decisions (Becker & Tomes, 1976) is evident in the almost universal assumption that parents want to save for their children’s educations. In more recent theoretical explorations, new concepts in financial planning concerning education not discussed in the classical economic literature include considerations of eligibility for financial aid and tax considerations, neither of which were considered when the focus was on the implications for public policy (Hogan & Kroeger, 2005).

**Modigliani and Friedman: Expenditure, Savings, and the Life Cycle**

Another early theoretical source for financial planning mentioned by Altfest (2004) was Franco Modigliani, who was awarded the Nobel Prize in 1985 for his work on savings and the life cycle. Modigliani postulated that decisions on consumption and savings were made by the individual consumer based on anticipated lifetime earnings and consumption, not just on that year’s needs (Modigliani & Brumberg, 1954). This premise would explain the almost universal consumption beyond their means by young people, not in terms of immaturity but in their high expectations. This hypothesis has far-reaching implications for the national economy, one of which is that how much the population of a nation saves does not depend on actual national income, but on the public’s perceived rate of growth of national income, since it assumes its own income will grow accordingly.

Milton Friedman in 1957 presented the Permanent Income Hypothesis, which is similar to Modigliani’s work. Subsequently, economists have tested this premise econometrically (Kotlikoff, Spivak, & Summers, 1982) with varying results, although most have tended to confirm it. A corollary of Modigliani’s life cycle premise is that the rise of Social Security benefits has been a contributing factor to the decline in savings in the United States since pension wealth tends to reduce savings (Attanasio & Brugiavini, 2003).

This life-cycle view is the basic premise on which financial planning bases retirement planning, turning the premise from an economic theory of how people will naturally behave into a guideline. Textbooks in financial planning implicitly use Modigliani’s theory when doing capital needs analysis to determine the amount a client needs to save and invest for retirement (Dalton, Dalton, Cangelosi, Guttery, & Wasserman, 2003; Mittra, Kirkman, & Seifert, 2002).

One difference in life cycle theory in economics and in financial planning is in perspective. Like Becker, Modigliani appears to have been more interested in the implications for macroeconomics and public policy than is a financial planner who is trying to maximize the utility of the economic and financial planning process.
financial resources of one client. An article that combines in its assumptions both Becker’s theories of decision making and Modigliani’s life cycle analysis with the pragmatic concerns of the practicing financial planner appeared in the *Journal of Financial Planning* in 2001 (Opiela, 2001). That article discussed the “tough choices” of saving for retirement and saving for college, and suggested that it was best to counsel saving for retirement.

In 2004, a retrospective study of household income and retirement (Lahey, Kim, & Newman, 2003) indicates that the concept of life cycle consumption patterns is an entrenched part of retirement planning in financial planning practice. Furthermore, the determination in this study that 40% of post-retirement income is earnings of other family members is consistent with financial and economic theories of altruism and choice as proposed by Becker (1965). Those theories were sustained in a quantitative study of transfers of money and time within households (Schoeni, 1997). Thus the financial planning literature supports Altfest’s (2004) assertion that financial planning is firmly grounded in economic theory.

**Modern Portfolio Theory and the Capital Asset Pricing Model**

Modern Portfolio Theory (MPT) (Markowitz, 1952) is another foundational theory (Black Jr., Ciccotello, & Skipper Jr., 2002). MPT is a normative theory that asserts that investors should choose investments based on discounted future expected returns and that for maximum risk adjusted returns investors should diversify across industries and asset classes. The theory is simple, but application requires many variations and refinements to accommodate circumstances and can be quite difficult to achieve.

An explicit application and implementation of MPT in personal financial planning appeared in 2001. It was a methodology for producing balanced portfolios using alpha, beta and R-squared statistics that was published in *Financial Planning* magazine (Israelsen, 2001). These three statistics are the cornerstones of most implementation of MPT. Foreshadowing today’s focus on income distribution in retirement, the express purpose of Israelsen’s methodology was to make it possible for an investor to always have a fund available for withdrawals that would be up in the current market, thus avoiding permanent loss of value due to bad timing (Israelsen, 2001).

MPT was further refined by Sharpe and Tobin into the Capital Asset Pricing Model (CAPM) (Sharpe, 1964; Tobin, 1958). In the CAPM, mean-variance analysis by investors is assumed. The CAPM decomposes the risk of an investment into two kinds of risk, systematic and specific. In the CAPM, Sharpe said that the market does not reward specific risk, since specific risk can be offset by diversifying the portfolio. In contrast to the normative nature of MPT, the CAPM is a descriptive theory of equilibrium.
relationships between expected rates of return and risk. Basically, the CAPM says that the premium return on an asset (the expected rate of return on the asset minus the rate of return of a riskless asset) is proportional to its beta, a measure of the sensitivity of a security’s rate of return relative to changes in the overall market. All investors seek to find the point of greatest return for their acceptable level of risk.

The problem for financial planners is that the CAPM has some rather heroic assumptions, in addition to the assumption that the investor performs mean–variance analysis. It does not take into account taxation or transaction costs, is interested in securities over only one period, and assumes riskless borrowing. The CAPM was further refined (Black, Jensen, & Scholes, 1972) by empirical testing from which emerged a modification that did not assume riskless borrowing. Over time refinements have improved the model. In the financial planning literature, one discussion listed seven assumptions that should be remembered when applying the CAPM (Oviatt, 1989).

This theory and its refinements, particularly a widely-quoted article that asserts that 90% or more of the return of a portfolio is due to the allocation among asset classes (Brinson, Hood, & Beebower, 1995), were fully accepted in the finance community and form the foundation of many decisions in institutional investment, asset allocation and portfolio management. However, Markowitz (2005) himself has recently challenged the ascendancy of the CAPM, saying that it is based on unrealistic assumptions and that when those assumptions are replaced by ones that more closely reflect the real processes of the market the results are less dramatic. While some recent articles using three-factor theory (Pollock, 2007) tend to confirm asset allocation as the primary driver of investment performance, there are also challenges to the fundamental conclusions of the Brinson, Hood and Beebower article (Jahnke, 2003), so the jury is still out on active vs. passive management.

For example, choosing the location of certain classes of assets in different accounts based on their tax status has been shown to yield 20 basis points higher return than the common practice of allocating the asset classes equally across a person’s or family’s multiple accounts (Daryanani & Cordaro, 2005). Therefore, while the CAPM may be useful in designing institutional portfolios, it is less appropriate for the individual and family portfolios that characterize personal financial planning. This conclusion is further reflected in personal financial planning articles that discuss tax efficiency in mutual fund portfolios (Opiela, 2002; Riepe, 2000).

Another expression of the relevance of MPT to financial planning is evident in a discussion of issues facing financial planning and of financial planning theory in the Financial Services Review (Black Jr. et al., 2002). The authors of that article claimed that financial planning was well-grounded theoretically, but that research that would guide the application of theory was
lacking. Modern portfolio theory was cited as the foundational theory, based on a larger view of the decisions concerning consumption and deployment of net worth into assets of all types, not just securities, including the residence, personal possessions and other use assets. Although this theory is plausible and makes theoretical sense, as the authors themselves stated, no empirical research substantiating it appears to be available.


Despite the fact that there is some concern about applying modern portfolio theory in the form of the CAPM, it is still the main theoretical basis for portfolio management in financial planning. Expanding the theory to include all assets, as suggested by Black, Ciccotello and Skipper (2002), to include use assets and human capital expands MPT beyond its basis in finance into theory and application that is unique to financial planning. Hence, from the existing literature, despite concerns about the predictive nature of MPT and its appropriateness to individuals’ portfolios, modern portfolio theory and the capital asset pricing model can be added to Modigliani’s and Becker’s theories as being foundational theories of financial planning.

**Educational Topic List of the CFP Board of Standards, Inc., as a Guide for Exploration**

The educational topic list has changed little over the life of the profession, and probably represents most if not all of the most common financial planning theories. The changes that have taken place consist mostly of additions as the complexity of the tax code, family arrangements, and financial products has increased. The original curriculum at the College for Financial Planning included the following categories of knowledge: Regulation and Ethics, the Financial Planning Process, Risk Management and Insurance, Retirement Planning, Employee Benefits, Investments, Taxation, and Estate Planning (Brandon Jr. & Welch, 2003). There are two more categories in the latest topic list (CFP Board of Standards, 2005), but not much variance over 36 years. An alternative method of organizing and integrating financial planning theory was suggested by Robinson (2000). He states that a good technique for teaching personal finance is to address it from four aspects of neo-classical economics: utility maximization, goal-directed planning, risk management, and the family life cycle, all of which provide a
theoretical framework. He also discussed aspects of personal financial planning that fall outside the four conceptual frameworks. Those aspects appear to be related to behavioral economics and sociological characteristics such as gender, race and culture. Although these conceptual frameworks have merit from a theoretical point of view, particularly when searching for foundational theories, the CFP Board Educational Topics list is used because it has a long history, has been refined by many planners over the years, and is more recognized.

As can be seen from the broad nature of the original curriculum and its nine categories and their sub-categories, financial planning is a profession that requires a multi-disciplinary approach. From its original conception it was designed to be an integrative and comprehensive process. This integration was emphasized as a key benefit of the financial planner professional by Dunton (1986) and in early College of Financial Planning study guides (College for Financial Planning, 1986).

The nine subject categories gave the structural framework to the remaining exploration of theoretical origins of financial planning. Not every topic within each of the categories was addressed. Selection is based to a certain extent on the frequency with which that topic is discussed in the literature, but also by the admittedly researcher-biased criteria of importance.

**Financial Planning as Strategic Management: The Financial Planning Process**

“The financial planning process is the goal and values driven strategic management of the client’s financial resources, a derivative of the strategic planning process that is well known in both the organization and management field and the finance literature” (Overton, 2007). This assertion of origin appears even more likely when an examination is made of the business literature of the time when the financial planning process was conceived. If the financial planning process is a special form of strategic planning and strategic management, then the financial planning process is now theoretically defined. Furthermore, there are more than 50 years of theoretical writings concerning strategy in the organization and management literature that could immediately be used to further refine the financial planning process.

As recently as 2005, strategic planning for the family business was the topic of an article in the *Journal of Financial Planning* (Jaffe, 2005). When the business environment of the late 1960s is examined, when financial planning was founded, it is clear how strategic planning evolved into financial planning. According to Lerner (1999), in the 1960s and 1970s corporate America was “obsessed” with strategic planning. In 1966, for example, the use of strategic planning for small businesses was discussed in the *California Management Review* (Gilmore, 1966). A version of the strategic planning

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process that is quite similar to the financial planning process appeared in *Banking* in 1968 (Gibbs, 1968). An article dealing with the problem of strategic plans being ignored by managers was also published in 1968 (Hekimian & Mintzberg).

In the same year, an article describing the problems of the strategic planner appeared in *Harvard Business Review* (Mainier, 1968). Ansoff’s classic *Toward a Strategic Theory of the Firm* was published in 1969, building on earlier work by Chandler (1962). The interest in strategic planning and its attendant process continued throughout the 1970s. Because of the ubiquitous discussion of strategic planning in business journals and magazines, any group of successful businesspeople in the late 1960s could be presumed to be familiar with the strategic planning process. In April of 1969, some 6 months before the meeting that established the financial planning profession and the Certified Financial Planner™ certification, the task of the corporate planner was identified as making “a study of the organization’s environment, (opportunities and threats), its resources (strengths and weaknesses), its personal values and its ethical and social responsibility.” (Mason, 1969, p. 109). Note that there was already concern over values, ethics and responsibility, and also note the anthropomorphic transformation of the organization into a person. From an environment permeated by strategic planning, the application of its concepts to personal financial resources would be a seamless transition. Interviews with founders who attended the meeting that founded the Certified Financial Planner™ certification and the College for Financial Planning have confirmed that fact (Overton, 2007).

One of the most important techniques transferred from strategic planning was the environmental scan and analysis of resources, organized into four categories, strengths, weaknesses, opportunities and threats. This “SWOT analysis” is characteristic of the prescriptive design school of strategy (Mintzberg, 1990) and is still explicitly mentioned in two of the more widely used textbooks of financial planning (Dalton et al., 2003; Mittra et al., 2002). One further illustration of the relationship of financial planning to strategic planning is stunningly evident when the steps in the financial planning process (minus the recent addition of establishing the relationship) are compared to the steps in the strategic planning process as stated more than 25 years ago (Bourgeois III, 1980). Table 1 compares the steps of each process. Based on these comparisons, the origin of the financial planning process is evident.
Table 1  
Comparison of Strategic Planning and Financial Planning Processes

<table>
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<tr>
<td>Environmental Scanning: Gathering data, including goals.</td>
<td>Gathering data, including goals.</td>
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<tr>
<td>Objective Setting</td>
<td></td>
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<tr>
<td>Distinctive Competence Selection</td>
<td>Analyzing and evaluating your financial status.</td>
</tr>
<tr>
<td>Power Distribution: (Within the organization, determining who will have authority and subordinate relationships).</td>
<td>Developing and presenting financial planning recommendations and/or alternatives. (What to do and who will do it.)</td>
</tr>
<tr>
<td>Resource Allocation (Deployment of financial and physical resources to carry out the strategy.)</td>
<td>Implementing the financial planning recommendations. (Allocating resources between investment and consumption in accordance with the plan. Allocating resources earmarked for investment among investments.)</td>
</tr>
<tr>
<td>Monitoring and Control of Outcomes recommendations.</td>
<td>Monitoring the financial planning recommendations.</td>
</tr>
</tbody>
</table>

Criticisms of Strategic Planning and Their Applicability to Financial Planning

As an application of strategic planning, the financial planning profession can benefit from the years of research into the strategic planning process. The criticisms of strategic planning as a theoretical process, including Mintzberg’s declaration of strategic planning’s death in the *Rise and Fall of Strategic Planning* (1994) and prior works, must also be met by financial planning. Opposing Mintzberg’s view over the past 30 plus years has been H. Igor Ansoff, who even went to the point of changing the name from strategic planning to strategic management to emphasize the processes that answer some of Mintzberg’s criticisms of strategic planning (Ansoff & Mintzberg, 1991; Lerner, 1999).
As the evolution of strategic planning into strategic management and strategic thinking occurred, similar changes were occurring in the financial planning process. These changes occurred in the financial planning field internally and were accepted without a change of name.

The controversy between Mintzberg and Ansoff started in the mid-1960s. As early as 1967, Mintzberg was critical of strategists and strategic planners (Mintzberg, 1967). He observed that planners always seem to consider the time in which they are working to be extremely turbulent. As he continued his investigations into strategy, Mintzberg became even more critical of strategic planning (Mintzberg, 1994). For example, Mintzberg’s most vehement criticisms have to do with the separation of formulation from implementation, based on the idea that consultants are brought in and, after investigation, formulate a plan and present it to the management of the organization, who then put it on a shelf and ignore it.

On the surface, that could describe the actions of the financial planner as well. However, unlike the situation in organizations where the management consultants, having designed and presented the plan, pack their bags and leave, a financial plan, because of its personal nature, is constantly re-adjusted and the relationship with the financial planner usually continues over a period of years (Morrow, 1994). This is more in line with what Mintzberg calls strategic thinking and Ansoff listed as a critical aspect of strategic management.

**The Evolution of Financial Planning to Strategic Financial Thinking**

In professional personal financial planning, where the management of financial resources is itself the product, the financial planner continues to work with clients to implement the plan, and continually monitors and adjusts the plan as both the internal and external environment changes. The financial planner essentially becomes the chief financial officer of the management team of the family or individual, and works to make sure that financial decisions are made consistent with client values and goals that were identified earlier. This is a key distinction and is evidence of strategic thinking. It exemplifies using the plan to guide not only decisions but also the thinking process when unforeseen circumstances present themselves. In literature concerning strategic planning the need for annual review is often mentioned (Burkhart & Reuss, 1993). In financial planning, it is assumed.

Financial planners have performed analyses of the profession and self-criticism that parallels the criticism in the strategic planning field. In fact, the relationship of financial planning to strategic planning was implicitly accepted in a critique of the financial planning profession in 2003 (Cumbie). In that article, Cumbie (2003) quotes from Mintzberg (1994) and calls for the
financial planning profession to incorporate into the professional body of knowledge a number of topics, some of which were: “strategic thinking, the concept of risk, developing vision, emotional intelligence, change management, scenario planning, social safety nets, theories of taxation and redistribution and active and empathic listening.” (pp. 21-22)

Of course, some of these topics are already in the profession’s body of knowledge. For instance, scenario analysis has been the topic of numerous articles in the financial planning literature (Opiela, 2004; Spitzer & Singh, 2003) and the use of Monte Carlo analysis, a controversial but extremely thorough method of scenario analysis, has also been the subject of many articles (Boinske, 2003; Booth, 2004; Kautt & Wieland, 2001; Tezel, 2004).

Strategic planning as a technique has been long-lived, and despite Mintzberg’s assertion that it is no longer viable (Mintzberg, Ahlstrand, & Lampel, 1998), continues to be used in many organizations today and to be discussed in academic journals (Hall & Lawson, 2003; Nickols & Ledgerwood, 2006; Rose, 2004). It appears that the distinction between Mintzberg’s concept of strategic planning and today’s strategic planning is to a certain extent semantic when compared to planning practice.

Interestingly, monitoring the plan (which implies revision as necessary) has been one of the steps in the financial planning process since the beginning and is emphasized in financial planning textbooks (Dalton, 2003; Dalton et al., 2003) (Mitra et al., 2002) and iterated in articles (Haas, 2000). Note that by 1980, Bourgeois had also incorporated monitoring outcomes into his version of the strategic planning process (Bourgeois III, 1980). Ansoff coined the term strategic management as an alternative to strategic planning specifically to emphasize that analysis was only part of the process (Ansoff, 1988).

One of the ways in which Ansoff (1988) differentiated strategic management from strategic planning was to say that strategic management is concerned with results while strategic planning is concerned with strategic decision making. Once again, this difference has been incorporated into financial planning without changing the name. So, while the financial planning process appears remarkably similar to the strategic planning process, comparing Ansoff’s differentiation between strategic planning and strategic management yields some interesting observations.

From its earliest days, financial planning has focused on reviews to monitor and make adjustments to a plan as client objectives and environments changed (Morrow, 1994). This could be interpreted as organic, ad hoc management, but appears to be more in the nature of strategic management. The focus has always been on the result, generally that of allowing the client to live the life he or she wants without financial worry. If strategic management not only focuses on things to do but on psychological, sociological and political variables (Ansoff, 1977; 1987), personal financial planning is by
definition personal strategic financial management. In the words of one author, “Strategic planning isn’t dead – it changed” (Wilson, 1994). Wilson asserts that strategic planning has evolved into a viable system of strategic management (or strategic thinking) after surviving its earlier design flaws.

Strategic thinking incorporates the steps and analyses of strategic planning into a more dynamic and change-responsive process of monitoring, adjustment and creative innovation, coupled with contingency planning. However, one must have done the environmental and resource analysis (SWOT) that is the hallmark of strategic planning to have enough information to do the creative thinking. According to Liedtka (1998), there are five characteristics that define strategic thinking: (a) a systems or holistic view, (b) a focus on intent, (c) thinking in time, including scenario planning, (d) hypothesis-driven, and (e) intelligently opportunistic. Financial planning meets all these criteria.

Financial planning has always been concerned with an integrative and holistic approach to the entire spectrum of the client’s financial life, including the client’s values. A focus on intent is evident in the way the financial planner seeks to optimize a client’s resources to meet the client’s goals. Scenario analysis, a common financial planning technique, is an example of thinking in time. Financial planning is hypothesis driven. For example, there has been a hypothesis about the proper way to determine client withdrawals to fund retirement expenditures and still preserve purchasing power and sufficient reserves, which is now being challenged (Evensky, 2005; Opiela, 2004) and alternate hypotheses of the correct manner of achieving this important task are being tested. The final criterion, intelligent opportunism, to a certain extent defines the added value that a financial planner renders to the client. Strategic thinking is intuitive and creative, looking for ingenious and innovative ways to achieve goals (Liedtka, 1998). It is not only knowledge but also creative use of that knowledge to achieve the client’s goals. Because of their expertise and devotion to the field of personal finance and planning, financial planners must be creative and seek new opportunities for their clients while continuing to safeguard their assets against undue risk.

Thus it is evident that the financial planning process is the value and goal-driven application of theories of strategic planning and strategic management to the financial affairs of individuals, families and closely-held businesses. The financial planning process, a foundational theory of financial planning, is firmly grounded in strategic management theory and financial planning uses theories of strategic thinking.

**General Principles of Financial Planning**

The other topics in the General Principles of Financial Planning category can now be addressed. This category includes the financial planning
process; the code of ethics; disciplinary procedures and standards of practice; personal financial statements; cash flow management; financing strategies; functions, purposes and regulation of financial institutions; education planning; financial planning for special circumstances; economic concepts; time value of money concepts and calculations; financial services regulations and requirements; business law and consumer protection laws, with subtopics in each of those topics (CFP Board of Standards, 2005). While this is a miscellaneous category, many of the topics included are extremely important.

**Personal Financial Statements**

Personal Financial Statements are basic analytical tools of professional personal financial planning, are used as part of the analysis of the financial resources of the client, and differ from corporate financial statements. The practice suggested in most major textbooks (Dalton et al., 2003; Leimberg, Satinsky, LeClair, & Doyle Jr., 2002; Mittra et al., 2002) follows the American Institute of Certified Public Accountants (AICPA) guidelines for preparing these statements, which since 1987 have required that assets be shown at fair market value (Kinsman & Samuelson, 1987). Thus the generally-accepted accounting standards for personal financial statements are the underlying theory accepted by the financial planning profession.

Although current practice is to follow the AICPA guidelines explicitly, an interesting application of Becker’s concepts of human capital was, however, recently proposed in an argument that said that human capital is an important resource and should be counted in the person’s or family’s balance sheet as an asset (Washer & Nippani, 2004). This view is consistent with the consumer science or home economics tradition, which has concerned itself with the human capital throughout its history. In the 1980s, the College for Financial Planning had a list of factors to consider in an analysis of resources that included human capital parameters such as health and education. Part of the analysis process, as taught at that time, was to determine the parameters for each of the factors (College for Financial Planning, 1986).

**Financing Strategies**

In an era when the lease vs. buy decision for autos and interest rates on home mortgages have become cocktail party conversation, the study of financing strategies within the family or small business is increasingly relevant. These issues are discussed in the family resource management literature and in the financial management literature as well. The decision to lease or purchase equipment is familiar to corporate financial managers. Most of the discussions center on the time value of money, one of the mainstays of
the study of finance in general and the object of lengthy discussion in undergraduate textbooks on corporate finance (Ross, Westerfield, & Jordan, 2004) and accounting (Warren, Reeves, & Duchac, 2006). The reliance on time value of money concepts is a necessary corollary to the capital needs analysis and life-cycle theories of Modigliani. In addition to straight time value of money issues, life cycle theory is also considered in such decisions as the length of home mortgages versus higher or lower interest rates, the advisability of making additional mortgage payments, and similar decisions (Larsen, 2004; Storms, 2000). It is clear that time value of money and life cycle theories are theories that are foundational to financial planning.

Remaining Topics In This Category

The remaining topics in this category are straightforward applications of tools from other disciplines. Functions, purposes and regulation of financial institutions are simply money and banking from the classical economics curriculum. The economic concepts required such as monetary policy, supply, and demand are standard topics from macroeconomics and are absolutely essential in understanding the environment in which the client’s decisions will be made. Business law is just what it seems. Every financial planner needs to understand the basics of contracts, liability, negligence, torts and the consumer protection laws. Education planning is a combination of taxation, investments and portfolios and macroeconomics.

Insurance Planning and Risk Management

This category includes principles of risk and insurance; analysis and evaluation of risk exposures; property, casualty and liability insurance; health care insurance and health care cost management (individual); disability income insurance (individual); long-term care insurance (individual); life insurance (individual); income taxation of life insurance; business uses of insurance; insurance needs analysis; insurance policy and company selection; and annuities, with sub-topics within each of these (CFP Board of Standards, 2005).

Risk management, usually with the insurance tool, is the first category that the financial planner analyzes and discusses, since there is little point in planning a client’s investments or retirement if all they own could be wiped out by some risk that was not properly handled. The textbooks used in financial planning education in this area are the same ones used by schools of insurance (Vaughan & Vaughan, 2002).

For example, actuarial concepts such as the law of large numbers, capital needs analysis, and risk management techniques are taught and used
by financial planners just as they are by people whose only field is insurance (Goodman, 2002). Understanding the law of large numbers, the basis of the insurance mechanism, is a necessary theoretical concept of financial planning, as are methods of handling risk. Articles in the financial planning literature on insurance questions, for the most part, could be just as easily published in insurance journals, and many articles from insurance journals concern financial planning.

Once again Modigliani’s life-cycle concepts affect the advice that financial planners give their clients, since the decision to purchase long-term care insurance, for instance, is a method of transferring the risk of not having enough assets to meet a high cost of living late in life. Probably the most frequently performed risk management calculation by financial planners, however, is determining life insurance need, and the tools used are the same as in the life insurance industry (Elger, 2003). It is clear where the source theory of this portion of financial planning was developed.

Accounting has also contributed to risk management and insurance, especially in devising criteria and ratios for judging products (Alexander, 1998; Godfrey III, 2001) and studies of the implications of tax changes on the use of insurance (Barens & Morris, 2003). The *Journal of Financial Services Professionals*, which started as a journal for life underwriters and estate planners, is now a recognized peer-reviewed journal of financial planning. It includes articles on every aspect of financial planning, not just insurance and risk management.

**Employee Benefits Planning**

This category includes topics of group life, medical and disability insurance, income tax implications of employee benefits (for both employer and individual), other employee benefits such as flexible spending accounts, pre-paid legal services and cafeteria plans, employee stock options, stock plans, and non-qualified deferred compensation with subtopics below these topics (CFP Board of Standards, 2005). From the employer’s point of view, the purpose of employee benefits is to attract and retain high-quality employees. Employee benefits professionals tend to focus on maximizing benefits at the lowest cost to the employer.

While the financial planner needs to understand the same tax laws and ERISA regulations, the perspective is different. First, if the client is an individual or a family, the analysis will focus on what the existing employee benefits mean to the client, not to the employer. When the client is a closely-held business, often the owner is an employee-owner and is interested in the benefit from both perspectives. As of yet, there does not seem to be research that integrates the theories of risk management (in the insurance sense) and the tax and ERISA concepts inherent in employee benefit analysis with the
capital needs and time value of money theories into a coherent model. Such a model would be a creative and useful contribution to financial planning theory.

**Investment Planning and Portfolio Management**

Most laypeople first associate financial planning with investments. This category includes characteristics, uses and taxation of investment vehicles, types of investment risk, quantitative investment concepts, measures of investment returns, bond and stock valuation concepts, investment theory, portfolio development and analysis, investment strategies, asset allocation and portfolio diversification, and asset pricing models (CFP Board of Standards, 2005) (Torre & Rudd, 2004). Most of these theories are used just as they come from the finance discipline, although such topics as portfolio tax efficiency for individuals (as opposed to the institutional ability to virtually ignore tax issues in investing), small portfolio problems, and making withdrawals last though the entire retirement period are clearly financial planning problems and not corporate finance.

Demographics have caused the topic of conversion of assets into an income stream in retirement to be a subject of increasing interest to both financial planners and the general public. Increased life expectancies and the prolonged and deep stock market decline that started in March 2001 emphasized the need for a more definitive way of identifying a safe drawdown of assets, since most people are not in the position of being able to avoid invading principal.

There is a commonly-held belief that young people, due to the many periods in which they can make up any losses, will have a higher risk tolerance than those nearing the end of their lives, despite the fact that early losses or gains have the most impact on future income. This idea was challenged by Samuelson’s germinal paper (1969), which pointed out that Modern Portfolio Theory as outlined in Markowitz’s original paper (Markowitz, 1952) and the liquidity assumptions of Tobin (1958) assumed investment over a single period. He then examined investment over a long period (i.e. a lifetime) and determined, by isoelastic marginal utility analysis, that the long time horizon would not in and of itself increase risk tolerance.

A recent article (Booth, 2004) explored this problem in a theoretical manner, using a constrained portfolio model combined with Monte Carlo simulation to consider the problem in a probabilistic manner. The result was a repudiation of Samuelson’s constant portfolio result model, and, in fact, seemed to vindicate the “your age in bonds” rule of thumb that is used by many financial planners. Understanding risk tolerance over time is critical to financial planning professionals, but which conclusion is correct is still unclear. Booth’s article (2004) implicitly assumed that Monte Carlo analysis is well-known and used by financial planners.
Monte Carlo simulation is a risk assessment technique that performs a simulation many times using a random selection of variable values. It uses a mathematical model to calculate a distribution of likely results. The technique is used in many fields, from medicine to urban planning, to determine the probability that desired futures will not be attained. The outcome of any one trial is not known, although there can be limits on the number of possible outcomes. In the types of simulations financial planners would do, the likely range of the variables, such as interest rates or return on the stock market or even inflation, are known, although it must be remembered that the 18% and 20% short-term interest rates of the 1980s were largely unpredicted and would have been inconceivable only a few years earlier.

Consider the situation of guiding a client in choosing a withdrawal rate for retirement income from a portfolio. Most basic financial planning textbooks (Dalton et al., 2003; Leimberg et al., 2002) suggest that the planner apply deterministic methods of problem solving, rather than simulation, to estimate the future value of retirement investments. These tools typically use historical investment returns over long periods of time and project a value for future investment balances by applying those averages equally for a number of years on a current portfolio balance.

Lately, it has been questioned whether this method gives a true picture of what withdrawal rates should be (Connelly, 1998), since it is patently obvious that returns fluctuate over the business cycle. Once again note that wide swings in valuation of the portfolio can be disastrous for an individual. It is far more dangerous to the future income of a retiree to have negative years early in the retirement period than later, yet the average yield on the portfolio might be the same.

In the first issue of Financial Services Review, Markowitz himself examined the differences in individual investing and institutional investing (Markowitz, 1991). More recent articles discuss other methods of determining the probability of a particular investment return and for regulating withdrawal rates from a retirement portfolio (Booth, 2004; Goodman, 2002; Opiela, 2004; Tezel, 2004). One of these articles mentions the application of actuarial mathematics to financial planning, particularly for retirement planning (Goodman, 2002), thus suggesting another discipline from which financial planning theory derives its body of knowledge.

The Efficient Market Hypothesis

In addition to Modern Portfolio Theory and the Capital Asset Pricing Model, a key theory from finance that has been embraced by many financial planners is the Efficient Market Hypothesis (EMH), which has been an important factor in thinking about stock prices and market behavior since the 1970s. EMH ignores the effect of irrational behavior on the markets, a heroic
assumption, and posits that investors almost always make rational decisions. Those who make irrational decisions are “noise traders” and the effects of their activities on the market as a whole are assumed to be random and of little consequence in asset pricing.

After the excesses of investor sentiment during the Internet bubble, it is difficult to believe that investor sentiment does not affect the market. However, the EMH is widely accepted. *A Random Walk Down Wall Street* (Malkiel, 2004), originally published in 1973, is the basic text of the EMH, and the financial planning world is divided on whether the efficient market hypothesis reflects reality.

An article in the October 2005 issue of *Financial Planning* (Carosa, 2005, pp. 56-57) generated what was probably the greatest flurry of reader responses of any article in recent history. In that article, the authors asserted two major flaws in previous studies of the active vs. passive strategy models, (1) snapshot in time issues, and (2) the equally weighted anomaly. Furthermore, the authors asserted, “An analysis of investment return data from January 1975 through June 2004 shows active investors in U.S. equity funds performed better than the S&P 500 two-thirds of the time and by an average of 2 percent annually.” This is in direct contrast to the theory that forms the foundation of the index fund industry that arose from the famous Brinson, Hood and Beebower article (1986). On the active side, Lo and Lin (2005) show quantitatively that investor sentiment does affect security pricing. Therefore they conclude that a contrarian view of the market is one strategy for higher than market returns, along with investment in smaller capitalization stocks and undervalued stocks. In the financial planning literature, the controversy continues. Regardless of what the ultimate answer to the questions concerning active and passive investment strategies may be, each investor has to make a decision concerning which strategy he or she will choose (Keane, 1986).

Modern Portfolio Theory, the Capital Asset Pricing Model, and capital markets theory are only the beginning of the investment knowledge required of a financial planner and form part of the theoretical body of knowledge of the profession.

**Income Tax Planning**

This category includes topics of income tax law fundamentals; tax compliance; income tax fundamentals and calculations; tax accounting; characteristics and income taxation of business entities, income taxation of trusts and estates; basis, depreciation and cost recovery concepts, with an array of additional topics and subtopics (CFP Board of Standards, 2005). This topic is largely dependent on tax laws and regulations.
Tax is not theoretical per se, but rather a matter of applying the rules set by the legislature. Tax topics fit into financial planning in such issues as tax efficiency of portfolio management and decisions on when to dispose of certain assets. In addition, the tax laws affect retirement planning since they determine which assets enjoy tax deferral or avoid tax on build-up altogether as do Roth IRAs. The effects of tax have to be factored into the decisions, but minimizing tax is not a theory issue.

**Retirement Planning**

This category covers retirement planning from the standpoint of the individual and from the point of view of the employer providing a qualified (ERISA-compliant) or non-qualified retirement plan. Its topics include retirement needs analysis, Social Security, types of retirement plans, qualified plan rules and options, other tax-advantaged retirement plans, regulatory considerations, key factors affecting plan selection for businesses, investment considerations for retirement plans, and distribution rules, alternatives and taxation (CFP Board of Standards, 2005).

The differences in the handling of risk and the income taxation constraints that exist on the individual or family as opposed to the institution have already been discussed. Also, other major assumptions that affect retirement planning, e.g., the lifetime income hypothesis and Modigliani’s life cycle theory, have already been fully discussed.

An interesting aspect of retirement planning, theories about a reliable income stream in retirement years, has been the focus of numerous articles as the baby boom generation has started reaching retirement age (Olsen, 2006; Opiela, 2004; Robinson, 2007; Sharpe, 1997). Fullmer (2007) posited that Modern Portfolio Theory was inadequate to develop a strategy for “decumulation,” and proposed “a new multiple-period, cash-flow-based investment framework that incorporates a dynamic asset allocation strategy and uses the cost of lifetime annuitization as a ‘hurdle’ for managing longevity risk.”

**Estate Planning**

This category, which is fraught with legal, tax and emotional concerns for the client, includes far more than simply the disposition of assets after death. Also included among its topics is planning for incapacity, a topic which can be even more emotionally difficult for the client to address than death. Additional topics are myriad. Obviously, many of the theories and techniques of estate planning come from the fields of law, insurance, and risk management. Although it is quite complex, estate planning is another area that has more to do with interpreting external rules than with the application of
theory. What distinguishes the expert in estate planning from the novice is the knowledge of techniques to take advantage of quirks in the rules.

**Client and Planner Attitudes, Values, Biases and Behavioral Characteristics and Impact on Financial Planning**

Although almost all planners recognize that clients’ emotional and attitudinal factors affect the financial planner’s attempts to optimize the use of financial resources, this topic was not addressed in the list of educational topics in much of the history of financial planning. There is increasing recognition of the counseling and educational nature of the client-planner relationship and the awareness of emotional issues on financial behavior. The topic includes cultural, family, and emotional factors, life cycle and age, the client’s level of knowledge, experience and expertise, risk tolerance and values-driven planning. After taking on lower importance for a number of years in which the profession concentrated on quantitative methods, the part played by behavioral and attitudinal characteristics of both the client and the planner in the success of the plan is increasingly recognized (Connelly, 1997; Matson, 2002; Schooley & Worden, 2003). There was, however, recognition of the importance of dealing with investor bias and risk aversion in early years. By 1971, James Johnston had completed writing the first course in the Certified Financial Planner® curriculum for use at the College for Financial Planning that opened the following year. That first course was entitled *Counseling the Individual – Basic Financial Planning* (Brandon Jr. & Welch, 2003). Client communications was still part of the first course in financial planning at the College for Financial Planning in the 1980s (College for Financial Planning, 1986).

Whether or not investor sentiment affects the market as a whole as Lo and Lin (2005) asserted, there is no question that investor behavior, biases and attitudes affect the financial well-being of the individual or the family. People make irrational financial decisions every day: they buy the stock du jour, they panic and sell on sudden dips that may be transitory in nature, they forgo additional earnings by refusing to take reasonable risk, or they take risks that are wildly inappropriate to their overall financial situation. These bad decisions are not just in the securities markets, but in all aspects of managing their financial resources. Trying to understand why people make irrational decisions, and how to keep them from doing it, is the thrust of this aspect of financial planning.

The father of behavioral finance is Daniel Kahneman, who received the Nobel Prize in 2002 for integrating insights from psychological research into economic science. Kahneman & Tversky’s (1979) original article in *Econometrica* was an examination of how economic decisions are made in risk situations and developed a new model of decision making that was called
prospect theory. Some 21 years later, Kahneman himself recommended that financial advisors should guide investors in making decisions that will best serve the investor’s interests (Kahneman & Riepe, 1998). This represents a rare instance in which a well-known academic recommends the inclusion of a theory from one field to the practitioners in another.

A recent article (Campbell, 2006) suggests that one explanation for poor choices in household finance is lack of education and knowledge. He even asserts that there may be a subsidy of the better educated and more affluent households who have knowledge by the less informed and poorer households. This would occur because those households do not take advantage of strategies such as refinancing.

One of the great mysteries of financial behavior is why the same choice presented in a different way will result in a different decision by the person making the decision. Behavioral finance and behavioral economics have identified several reasons why people make these poor decisions – anchoring, framing, sunk cost fallacy, confirmation bias and simple overconfidence (Belsky & Gilovich, 2000).

Based on the long history of concern with client communications, consumer behavior and decision making, many theories from those fields definitely should be recognized as foundational theories of financial planning and this is an area for further research. The attitude of the client towards risk is one of the key factors in determining the optimum strategy for that client.

Principles of Communication and Counseling

This is the second of the two new categories. It includes types of structured communication, including interviewing, counseling and advising; essentials in financial counseling, which includes establishing culture, creating rapport, and recognizing resistance; characteristics of effective counselors, which encompasses unconditional positive regard, accurate empathy, genuineness and self-awareness; nonverbal behaviors; attending and listening skills; and effective use of questions (CFP Board of Standards, 2005). This area of expertise owes much to psychology, sociology and management and organizational behavior. Historically, it is the least discussed in the professional literature, possibly because of the discomfort that some quantitatively oriented financial planners experience when dealing with it, yet it is critical to the successful practice of personal financial planning. It was the item most mentioned in the open-ended responses to the 2004 Job Analysis Survey sponsored by the CFP Board (Overton, 2007). While the financial planner may apply some of the findings in the communications fields to his or her practice, there is not a theoretical basis that is inherently one of financial planning. Therefore, there was not an effort to find theoretical principles of client communication.
Conclusion

It has been shown in this study that financial planning is the value and goals driven application of strategic management to the client’s financial and economic resources, and that the financial planning process is an adaptation of the strategic planning process to the client’s financial and economic goals. Furthermore, the theoretical body of knowledge of financial planning represents the integration into a comprehensive whole of a variety of theories from multiple disciplines. Finally, further research is needed into the behavioral and communication aspects of financial planning, and analysis of financial planning theory is an area in which there are many opportunities for further research.

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MORTGAGE CHOICE: A REVIEW OF THE LITERATURE

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ABSTRACT

Although mortgage choice is complex, taking into account various uncertainties, constraints and risks, there has been surprisingly little research conducted from the viewpoint of the homeowner. This paper provides a summary of the literature concerning mortgage choice in five broad categories reflecting the main decisions facing a mortgagor including the mortgage as an investment portfolio decision, the choice between fixed rate and adjustable rate mortgages, the selection of a mortgage term, the option to refinance a mortgage, and deciding between contracted mortgage rate and mortgage point combinations. The review of the literature indicates the importance of an educated consumer, and therefore it is essential that financial research continues to identify and provide guidance on optimal mortgage decisions and that consumers receive appropriate advice to navigate this potential financial hazard.

According to the 2001 Survey of Consumer Finances the median United States household has financial assets of $35,000, a net worth of $86,000 and total assets of $135,000. For middle-class American families more
than half of their assets are in the form of housing and, as such, housing as an asset class is of utmost importance. In addition to an investable asset class, Pelizzon and Weber (2005) and Sinai and Souleles (2005) contend that houses deliver a stream of housing services to their owners and provide a hedge against the relative price of housing and non-housing consumption. However, Cocco (2005), Flavin and Nakagawa (2004), Fratantoni (2001), Shore and Sinai (2005) and Yao and Zhang (2004) point out that houses are illiquid assets, and households find it difficult to adjust their consumption of housing in response to economic shocks. This illiquidity may discourage homeownership and risk-taking by households.

Although the illiquidity of housing may discourage homeownership, in 2006 alone there were over 27.5 million mortgage applications in the U.S. Households normally utilize mortgage financing in order to facilitate the purchase of a home. One may expect that the process of obtaining and selecting a mortgage would be relatively straightforward and highly researched given the tremendous application volume and the significance of housing to the economy. However the process of obtaining a mortgage and the related decisions facing a mortgagor remain complex. Follain (1990) notes that a potential mortgagor not only has to worry about the same issues as an investor (cost of debt and equity, default, diversification, transaction costs), but also must be concerned with the possibility of moving, liquidity constraints and tax issues. More recently Campbell and Cocco (2003) present some of the related complexities as follows:

The problem of mortgage choice is both basic and complex. It is basic because almost every middle-class American faces this choice at least once in his or her life. It is complex because it involves many considerations that are at the frontier of finance theory: uncertainty in inflation and interest rates, borrowing constraints, illiquid assets, uninsurable risk in labor income, and the need to plan over a long horizon (p. 1494).

Despite these non-trivial issues, Campbell (2006) observes that “there has been surprisingly little work in mortgage decisions from the perspective of the household” (p. 1577).

In addition to these complexities, the mortgage decision is made even more complex by the borrower’s personal characteristics. Similar to other debt decisions, those concerning mortgage debt usage are potentially impacted by income, age, race, education and self-reported attitudes towards risk. For example, Chen and Jensen (1985), Crook (2001), Salandro and Harrison (1997), Spencer and Fan (2002) and Zhu and Meeks (1994) report that households with outstanding debt are more likely to be young, non-white, less formally
educated, employed individuals with lower net worth, larger household sizes, and higher incomes. Recently Maki (1996) indicates that higher levels of mortgage debt occur more often in married households with higher levels of education.

The remainder of this paper will provide a summary of the literature concerning mortgage choice. The literature is presented in five broad categories reflecting the main mortgage decisions facing a mortgagor including: (1) the mortgage as an investment portfolio decision, (2) the choice between fixed rate and adjustable rate mortgages, (3) the selection of a mortgage term (15-year versus 30-year mortgages), (4) the option to refinance a mortgage, and (5) deciding between contracted mortgage rate and mortgage point combinations. The conclusion of the paper will provide a brief summary of the literature related to proposed new mortgage products.

**The Mortgage as an Investment Portfolio & Lifecycle Decision**

In making a home purchase decision, a mortgagor needs to determine the amount of financing required while considering both ability and willingness to make a down-payment. Conventional financing in the U.S. mortgage market typically requires a loan-to-value ratio of at most 80%. A potential mortgagor could obtain a greater loan-to-value ratio; however, this would typically result in either secondary financing (a second mortgage or equity line) or a requirement for private mortgage insurance to reduce the risk exposure of the lender in the case of default. Under either alternative, the cost of the financing to the mortgagor is increased given either the higher interest rate(s) on the loan product(s), required insurance premiums, or a combination of the two. The loan-to-value issue has received limited attention by academic researchers to date. However, Hendershott and Hsieh (1980) and Jones (1985) are papers that have addressed this issue directly.

The required down payment on the home purchase and the contractual commitment to the required mortgage payments have further implications on the lifetime savings and consumption patterns of a household. One of the primary reasons for a household’s use of a mortgage is to smooth its lifetime consumption of housing. Lifecycle models capture the evolution of financial strategy as households age. The basic lifecycle hypothesis is characterized by a pattern of borrowing in the early years, saving in middle, high earning years, and dissaving in the retirement years. A fundamental idea of this lifecycle income hypothesis is that individuals determine their current consumption based upon their current net worth, current income, and expected future income, rather than solely upon their current income level (Ando & Modigliani, 1963). The purchase and financing of housing will be the largest investment for most households, and homeowner equity is primarily accumulated in the middle years of the life cycle. Thus, both consumption and
wealth accumulation behavior will be impacted significantly by this single investment decision.

A household’s homeownership decision has additional implications for its potential investment strategies. Chen and Jensen (1985) suggest that the use of mortgages or home equity represents a type of “forced” savings. According to Fratantoni (2001) the household’s commitment to a mortgage may help to explain its reluctance to invest more heavily in the market. In his model, he looks at the combination of market risk and labor income compounded by the committed expenditure risk of home ownership. He reports that the inclusion of homeownership results in lower risky asset holdings as compared to those predicted excluding this factor. A recent study by Yao and Zhang (2004) also examines the impact of home ownership on the household portfolio decision. Their study concludes that if a household is indifferent to owning or renting, the investor will choose to substitute home equity in place of risky stocks for net worth. Further, upon relaxing the liquidity constraint, the investor opts for owning over renting and will tend to invest less in equities as compared to the investor who alternatively opts to rent. Another perspective is provided by Campbell (2006) who contends:

…some households may fail to invest in stocks, or may invest only cautiously in stocks, in part because they are aware they lack the skills to invest efficiently. They may correctly calculate lower welfare benefits of participation given their investment skills, or they may simply feel uncomfortable participating in an activity for which they are poorly prepared (this can be interpreted as a higher psychological fixed cost of participation) (p. 1576).

The accumulation of home equity over the household’s lifecycle may also have implications for later years to the extent that it results in an increase in the household’s ability to dissave and consume. Grossman and Laroque (1990), Cocco (2004) and Yao and Zhang (2004) investigate the implications of housing consumption and portfolio decisions utilizing lifecycle models and report that housing ownership is associated with reduced levels of more liquid assets in a household’s net worth. Further, Chen and Jensen (1985) find that households are unwilling or unable to use their accumulated home equity for consumption in their retirement years.

Home equity is likely to remain a significant untapped source of wealth as long as households remain reluctant or unable to use this asset for consumption. Over the years, lenders have created several products designed to assist households in extracting home equity including second mortgages, equity lines, and reverse mortgages. Like many mortgage decisions, the decision to smooth lifecycle consumption by dissaving home equity is as
much an emotional as a financial decision. Consequently, in addition to developing products such as the reverse mortgage, lenders have recently attempted to disseminate information to potential consumers and advertise to create more favorable consumer perceptions.

**Fixed Rate Mortgages versus Adjustable Rate Mortgages**

Another decision that a potential mortgagor makes involves selecting either a fixed or variable rate of interest on their mortgage. In the U.S. mortgage market, conventional mortgage contracts can be broadly classified into two main categories: adjustable rate (ARM) and nominal fixed-rate (FRM) mortgages. An ARM is essentially a variable or floating rate note issued by the mortgagor. Alternatively, an FRM is a long-term nominal bond that typically includes an embedded call option that permits the mortgagor to either repay or refinance their mortgage if the current economic environment makes it beneficial to do so.

Textbook theory suggests that the ARM is the safer choice of the two since it has a stable market value resulting from the floating rate characteristic. Conversely, the value of an FRM changes over time as a result of the contractually fixed interest rate established upon the origination of the mortgage combined with the variability in inflation or interest rates in the market. As a result, the mortgagor is subject to greater inflation risk if they select an FRM as compared to an ARM.

Nevertheless, financial practitioners and planners oftentimes perceive ARMs as risky for households and consequently steer their clients away from them. According to Fisher and Shelly (2002), ARMs are characterized as a “gamble,” whereas FRMs are described as “safe and dependable.” A recent experience involving one of the authors of this paper and a local lender confirms that this divergence extends beyond the academic and practitioner press. In this discussion, the lender indicated that they would “never recommend an adjustable rate mortgage” and would only originate one if “forced to” by an inflexible borrower. As a result of practitioners and mortgagors perceiving FRMs as a safer alternative, it is of little surprise that the number of FRMs tends to greatly exceed the number of ARMs originated in the U.S. mortgage market. In fact, according to the Federal Housing Finance Board (FHFB), 72% of newly issued mortgages between 1985 and 2005 on average were FRMs. However, the underlying common perception that a FRM represents the safer alternative as compared to an ARM is contrary to financial theory.

Campbell (2006) contends that this paradox can be resolved when we consider two special household characteristics. First, a household must plan over a long horizon. Given that inflation and interest rates may increase over time, a household would face a potential increase in its real borrowing costs in
future time periods under an ARM. A household may desire to hedge this risk by alternatively selecting an FRM. Further, even in cases where real interest rates are constant, a borrowing constrained household may experience a decrease in future consumption if they select an ARM. For example, when future inflation expectations increase, the nominal interest rate and required monthly mortgage payment will increase even though the current price level has not adjusted. This may not be an issue for a household with additional borrowing capacity as it may borrow to make the accelerated payments. Alternatively, a household that faces borrowing constraints is unable to borrow to make the accelerated payments and consequently would face a reduction in its consumption. Consequently, an ARM results in an increase in the mortgagor’s income risk related to the short-term volatility of the real mortgage payments that are required each month.

Campbell and Cocco (2003) provide additional insight into the relationship between interest rate risk, inflation rate risk, household borrowing constraints and the selection of mortgage instruments. Their solution obtained by a numerical model indicates that an ARM should be attractive to unconstrained households when inflation risk is large relative to interest rate risk. An ARM is also potentially beneficial to a borrowing constrained household with low risk aversion. Conversely, an ARM is less beneficial to risk-averse borrowing constrained households or to households that have a high level of mortgage debt relative to their income.

Another factor impacting the selection of a FRM or ARM is the prevailing interest rates on the two mortgage products. Campbell (2006) shows that when the rate of interest on the FRM has recently increased, mortgagors are more likely to select an ARM. Conversely, when the FRM interest rate has recently decreased, mortgagors are more likely to select a FRM. In summary, Campbell (2006) contends, “some households appear to choose between FRMs and ARMs as if they irrationally believe that long-term interest rates are mean-reverting” (p. 1578). Unfortunately, this erroneous assumption of mean-reversion in mortgage interest rates held by mortgagors receives support from advice offered in some personal finance books. For example, Steinmetz (2002) advises getting an FRM “if you think rates are going up” and Irwin (1996) advises “When interest rates are low, lock in the low rate.”

Baesel and Biger (1980) provide a model that indicates that the spread between FRM and ARM interest rates also impacts the selection of a mortgage product. According to their model, the selection of a mortgage product depends on the interest rate spread and on the covariance between borrower’s labor income and the rate of inflation. Campbell (2006) reports evidence that homeowners respond to the spread between FRM and ARM rates but that the spread does not appear to explain all of the observed movement in relative mortgage market share. A recent study by Schwartz...
(2006b) looks at the determinants of ARMs usage by analyzing data reported in the American Housing Survey. The results indicate that in the early years of the survey ARMS were favored by younger households financing their first home utilizing relatively small mortgages. Alternatively, ARMs were favored in the later years of the survey by better educated households. This was particularly the case in 2003. Interestingly, 2003 was a year of unusually wide spread between FRM and ARM interest rates. Sophisticated households should have been attracted to ARMs given the prevailing interest rate environment, whereas unsophisticated households may have expected rapid mean-reversion in mortgage interest rates and as a result selected FRM products.

Statman (1982) presents a model that suggests that borrower preferences for FRMs or ARMs depend on the relationship between the rate of changes in labor income and the rate of inflation. The borrower preferences further depend on the relationship between changes in the net value of houses and the rate of inflation. Daidoff (2006) reports that the covariance between labor income and house prices also affects the size of a household’s position in owner-occupied housing. Follain (1990) provides a detailed survey of the literature surrounding mortgage choice including certainty and uncertainty models. Alm and Follain (1984) emphasize the importance of labor income and borrowing constraints on mortgage choice. Brueckner (1986), Arvan and Brueckner (1986) and Scott, Houston and Do (1993) all present models incorporating both lender and borrower risk. Stanton and Wallace (1999) also discuss the interest rate risk of an ARM. For literature concerning dynamic choice models see Brueckner (1984), Barney and White (1986) and Sa-Aadu (1987).

Szerb (1996) expands on the earlier mortgage literature including Baesel and Biger (1980), Statman (1982) and Smith (1987) by providing further insight into the borrower’s choice of FRM and ARM contracts by incorporating the effect of real shocks. Real productivity shocks affect real income, the real value of a house and real interest rates. Szerb (1996) contends that the FRM versus ARM choice is determined by the expected real interest rate differential, initial wealth, income, the expected real and nominal income risk exposure, the value of the house, the appreciation of the house and the influence of nominal and real shocks. The results suggest that exposure to more nominal or real shocks results in a decrease in the probability of selecting an ARM, whereas expected real and nominal income growth increase the probability of ARM selection.

Another factor that impacts the mortgagor’s choice between FRM and ARM is the expected time horizon of ownership. Homeowners who expect to move within a few years are commonly advised to take out an ARM to take advantage of the lower initial contracted interest rate. Shilling, Dhillon and Sirmans (1987) analyze data on mortgage borrowing and estimate a reduced-
form econometric model of mortgage choice. Their results indicate that stable income and higher probabilities of moving result in more likely use of an ARM. Similarly, Campbell and Cocco (2003) show that when inflation risk is high, ARMs are more likely to be the mortgage choice for households that have stable incomes, smaller houses relative to income, a higher probability of moving, and lower risk aversion. Conversely, households with high risk aversion or that have high mortgage debt relative to income will be more inclined to opt for FRM financing. The choice between the ARM and the FRM can significantly affect household wealth. FRM contracts expose households to wealth risk whereas ARM contracts expose them to income risk—the two determinants identified by Merton (1971) as the primary factors underlying the investment strategy model for households in the early ‘70s.

Households appear to consider many factors in making a decision whether or not to utilize a FRM or ARM. Identifying all of the specific components that have a role in the decision process and modeling the optimal mortgage contract choice presents a complex research problem. Interest rate risk, labor income risk, inflation rate risk, current borrowing constraints, future borrowing constraints, risk aversion, nominal and real shocks, the likelihood of geographical relocation, and the ability to refinance are all factors that have been modeled or considered by researchers.

**Mortgage Term Selection, Taxes and Opportunity Costs**

A potential mortgagor must also make a decision concerning the contracted term of the mortgage. The two most popular mortgage terms in the U.S. are the 15-year and 30-year mortgage. In making the mortgage term decision, a potential mortgagor needs to consider the after-tax cost of the mortgage, the potential opportunity costs associated with the required payments, and the potential prepayment option embedded in the selected instrument. Underlying this decision is the mortgagor’s interest in present and future consumption and the potential impact upon the wealth accumulation of the household.

The mortgage decision of a household should take into consideration the complexities and non-neutralities of the tax code. The potential tax advantages related to mortgage debt have implications for the real cost of the mortgage as well as on the prospective accumulation of wealth by the household. Poterba (2002) surveys the vast literature on taxation and optimal portfolio choice. In general, homeownership and mortgage debt may result in tax benefits to the household either in the form of tax deferral—delay of payment of taxes to future years or tax avoidance—the legal utilization of tax laws to reduce the amount of tax that is owed.

One tax avoidance benefit of a home mortgage involves the deductibility of mortgage interest in the calculation of individual income taxes for
those individuals that itemize their taxes. According to the Statistics of Income Bulletin, Winter 2005, 36.3% of households itemized their deductions in 2004. The tax deductibility of mortgage interest results in a lower cost of debt for these households. As a result of the favorable tax treatment afforded to mortgage interest under the current tax code, a household potentially has an incentive to carry higher mortgage balances. In contrast to interest on mortgage debt, a household cannot deduct personal interest given recent changes in the tax code. Personal interest includes interest paid on a loan to purchase a car for personal use as well as credit card and installment interest incurred for personal expenses. Dunsky and Follain (2000) and Stango (1999) report that households reallocated their debt away from personal debt with non-deductible interest to mortgage debt with tax-deductible interest after the changes in the tax code.

Another potential tax avoidance benefit related to home ownership involves the taxation of capital gains resulting from the sale of a personal residence. Prior to 1997, taxpayers who sold their primary residence could defer tax on their gain only if they bought another home within 2 years of selling. Further, the price of the new home had to be at least equal to the price of the home that was sold. The Taxpayer Relief Act of 1997 drastically changed the related tax laws. Under the new law, the purchase of another home is not necessary to receive capital gains tax relief, and only the realized gain in excess of $250,000 (or $500,000 for a married couple) is taxable. Also, this tax avoidance strategy is no longer a “once-in-a-lifetime” option, but can be repeatedly exercised as long as ownership and use tests are met. The tax avoidance benefits of mortgage debt and the potential for favorable treatment of capital gains provide an incentive for home ownership and higher relative levels of mortgage debt. These factors may increase the propensity of selecting a 30-year rather than a 15-year mortgage since an individual is likely to qualify for higher levels of mortgage debt given the lower required monthly payments.

Another important consideration for the mortgagor in selecting an appropriate mortgage term involves the consideration of the potential impact of opportunity costs. In selecting a shorter-term mortgage, a household would benefit from lower financing costs and faster equity accumulation over the life of the mortgage loan as well as an earlier cessation of the contractual payments. However, these benefits come at the expense of a higher contracted monthly payment resulting in less financial flexibility, an increased allocation of the household’s wealth to real estate investments in the form of their primary residence, and opportunity costs associated with alternative potential uses of the additional committed funds required to accelerate the mortgage term.

Various studies have examined the opportunity costs associated with a home mortgage by analyzing the potential benefits of prepaying a mortgage.
vs. investing in other financial assets. The common conclusion is that households are better off if they place their funds in an alternative investment as long as the after-tax rate of return on the financial investment exceeds the after-tax interest rate paid on the mortgage (Edelman, 2001; Johnson, 2000; Storms, 2000). The benefits of following this strategy include an increase in financial assets, a better opportunity for portfolio diversification, an increase in lifetime wealth and potentially higher future consumption. However, this strategy will result in a slower accumulation of home equity. Further, while the rate of return on mortgage prepayment is risk-free to the household given that it is contractually set at origination, the rate of return on the alternative investment in financial assets is uncertain and therefore involves a greater level of risk. Also, a mortgage is secured by an individual’s personal residence and therefore is a financial decision that can be made with complete objectivity.

A similar decision involves the selection of an original mortgage term. If mortgagors select a 15-year mortgage, they are contractually required to make higher monthly mortgage payments as compared to a 30-year mortgage. Instead of making the higher monthly payment on the 15-year mortgage, a mortgagor could alternatively take out a 30-year mortgage with a lower required monthly payment and invest the after-tax payment differentials. Several articles have focused on the potential benefits associated with utilizing a 30-year mortgage rather than a 15-year mortgage. Marshall (1989) and McCartney (1989) discuss the interest savings that accrue to the mortgagor given a 15-year mortgage but also discuss a related opportunity cost in terms of a decrease in the mortgagor’s budgetary flexibility. Vrunik and Fisher (1995) discuss the impact of the mortgagor’s marginal tax rate and prevailing mortgage interest rates on the relative benefits of a 15-year or 30-year mortgage and conclude that the 30-year mortgage is more beneficial to individuals subject to higher marginal tax rates.

Goff and Cox (1998) consider the benefits associated with a 30-year mortgage and a tax-deferred savings account. Their findings indicate that a 30-year mortgage coupled with a tax-deferred savings account may provide significant benefits for the mortgagor. Similarly, Tomlinson (1995) utilizes simulation techniques to further investigate the relative potential benefits of a 30-year mortgage. Their results indicate that the attractiveness of the 30-year mortgage increased as the time horizon of the assumed investment rates of return increased.

A recent study by Palmer and Lown (2006) raises questions concerning the rate of return that a household could expect to earn on alternative investments. Prior studies typically use some measure of average historical return associated with equities or other asset classes and assume that households would experience this rate of return in future time periods. To support the contention that this return assumption is incorrect, Palmer and
Lown cite recent research by Dalbar, Inc. (2001). Over the 19-year period ending December 2002, the average annual return on equity mutual fund investments was 11.8%; however, the average return for equity mutual fund investors over the same time period was reported as only 2.6%. The large divergence between these averages is attributed to the short average holding period of investors (approximately 2.6 years), indicating a propensity to trade much more frequently than an assumed buy-and-hold strategy. Clements (2004) indicates a potential error in the calculation of equity mutual fund returns in Dalbar, Inc. and provides a revised average return for equity mutual fund investors of 8.2% during the identical time period.

Another concern articulated in the Palmer and Lown (2006) article addresses the assumed portfolio allocation models employed in prior studies. They note that many of the earlier studies assumed a 100% equity investment by the household in the calculation of the opportunity costs. For obvious reasons, this assumption is tenuous at best as most households will hold various asset classes in their portfolio, weighted appropriately to correspond with their degree of risk aversion. Gutter (2000) contends that the portfolio allocation decision of a household depends on its risk aversion and has significant implications for wealth accumulation as a determinant of its rate of return. For research concerning the determinants of risk tolerance and its relationship to the asset allocation decision see Grable and Lytton (1998), Schooley and Worden (1996), Sung and Hanna (1996) and Wang and Hanna (1997). Interestingly, whether or not a household is willing to take on debt may also be a function of their degree of risk aversion (Spencer & Fan, 2002). Waggle and Johnson’s (2003) analysis reports that once they have taken on debt, the level of risk aversion continues to be a factor in the homeowner’s investment decisions. The results of their study employing a mean-variance analysis indicate that for a moderately risk-averse household that has a relatively large mortgage debt, the optimal equity investment portfolio allocation weight is as low as 12%.

Palmer and Lown (2006) also contend that the prior studies “inadequately address the long-term consequences of keeping or eliminating mortgages, since neither method addresses actual household behavior, nor provides a means for retrospective analysis of the decision.” (p. 6) Upon analyzing the differences in household wealth accumulation using data from the Health and Retirement Survey covering the period 1992 through 2002, they assert that leveraged households appear ineffective in their ability to achieve higher asset gains relative to unleveraged households. They further conclude that, given the decrease in defined benefit pension plans, elimination of mortgages prior to retirement may be a more “prudent recommendation” than recommending a longer mortgage term and investing the after-tax payment differential.
Basciano and Grayson (2006) analyze the choice between a 15-year and 30-year mortgage coupled with investing the after-tax payment differential from a positive rather than normative perspective. Employing Monte Carlo simulation, they investigate several portfolio allocation models, incorporating the historical returns and variability associated with various underlying asset classes. Their study indicates that in a wide range of potential interest rate environments, the 30-year mortgage resulted in greater household terminal wealth for several of the assumed portfolio allocation models. The author noted that the increased household terminal wealth was predicated upon an assumption that the after-tax payment differential was actually invested and not alternatively used to increase current consumption.

The Option to Refinance

According to the Federal Housing Finance Board, most FRMs issued between 1985 and 2005 have a 30 year maturity at origination, are non-assumable, and can be refinanced at the borrower’s discretion without penalty at any time (Campbell, 2006). The option to refinance means that in times of declining mortgage rates, the household can refinance its mortgages and avoid paying the higher original contracted interest rate. Obviously, as mortgage interest rates decline, there is an incentive for households to refinance their mortgages.

The new lower contract interest rate provides an opportunity for the household to lower its required monthly mortgage payment by refinancing the outstanding principal balance on its existing mortgage. An additional option available to the household would involve the extraction of home equity, refinancing a larger principal balance than the payoff associated with the current mortgage. In this circumstance it is possible that the household can increase its mortgage debt without increasing the required monthly payment given that the refinancing occurs at the lower prevailing mortgage interest rate. Alternatively, a household can combine these strategies by reducing the monthly payment while simultaneously extracting home equity. Coy and Keenan (2003) observe that in the late 1990s and into early 2000, mortgage rates dropped to a historic low and simultaneously home values appreciated significantly. The combined effect of these two phenomena made the option to refinance extremely attractive. The potential effect of home equity extraction on consumer spending is significant enough to have gained the attention of the Federal Reserve Board for further study (Greenspan & Kennedy, 2005).

There is an obvious incentive for households to refinance as mortgage market interest rates decline, and it is generally thought that households have become more responsive to such incentives. (Bennett, Peach, & Peristiani, 2001). However, a household incurs significant one-time costs upon refinancing a mortgage such as origination fees, attorney fees,
title insurance, recording fees, and documentation fees, to name a few. In
general, a household should not refinance a mortgage until the present value
of the resultant interest savings associated with the refinanced mortgage
exceeds the transaction costs incurred. Further, since the existing mortgage
also includes an option to delay the refinancing, the incremental savings
associated with the refinanced mortgage must compensate the household for
the loss of this option.

A recent study by Agarwal, Driscoll and Laibson (2006) estimates
refinancing costs during the 1990s at $2,000 plus 1% of the mortgage balance.
Given this estimate, a 1.1% to 1.4% interest rate spread between the existing
and current mortgage alternative is required to justify the refinancing costs for
a mortgage between $100,000 and $200,000. These findings are interesting in
light of recent research by Schwartz (2006a) that analyzes data from the
American Housing Survey and reports that in 2003 more than half of the
surveyed households were paying a spread of more than 1%, more than a
third were paying a spread greater than 1.5%, more than a quarter were paying
a spread in excess of 2%, and one-eighth were paying a spread more than 3%.
These results indicate that households appear sluggish in their mortgage
refinancing decisions. However, Agarwal et al. note that many households
make the opposite mistake and refinance their mortgages too quickly, failing to
take into consideration the resultant loss of their existing option to delay
refinancing.

The sluggishness of household mortgage refinancing decisions has
received considerable research attention. A significant portion of the research
in this area focuses on the valuation of mortgage-backed securities and
generally does not investigate the economic causes of the sluggish behavior.
For examples of research in this area see Dunn and McConnell (1981),
Some of the underlying economic causes that may present obstacles to
refinancing and contribute to sluggishness have been identified as: declines
in house value- referred to as the “lock-in effect” (Caplin, Freeman & Tracy,
1997), insufficient income or collateral (Archer, Ling, & McGill, 1996), and poor
creditworthiness (Archer et al., 1996).

Recently, Campbell (2006) contends that “it is plausible that the
sluggish refinancing is [merely] an investment mistake” (p. 1581). In his
analysis, Campbell re-examines the effect on refinancing behavior including
the loan problem (principal balance of the mortgage exceeds 90% of the value
of the home) and the income problem (new mortgage payment for 30-year
FRM would exceed 28% of current income) in his model, both causes consid-
ered by Archer et al. (1996). While his results were consistent with the
findings of Archer et al., Campbell noted that these effects had weakened
since the 1980s—the time period for the mortgage refinancing data examined
by the Archer study. Campbell concludes that the weaker observed relation-
ships may result from a number of factors including relaxed standards for
mortgage lending in the more recent time period and the significant rise in house prices resulting in fewer insufficient equity problems for households. Further, Campbell (2006) contends that “younger, smaller, better educated, better off, white households were more likely to refinance their mortgages between 2001 and 2003 [and that] these patterns suggest that prompt refinancing required financial sophistication” (p. 1581).

Another interesting finding reported by Campbell (2006) is the likely error in the self-reported household mortgage rates for some participants in the AHS survey. Campbell observes that “about 7% of households report implausibly low mortgage rates [and that the] reporting error is much more common among less-educated households” (p. 1584). He suggests that if households fail to realize that they are paying higher rates, they naturally would not consider taking advantage of a refinancing option in their FRM. Bucks and Pence (2006) show a similar finding with respect to ARM borrowers. They report that many ARM borrowers, especially lower-income households, do not understand the potential impact of rising mortgage interest rates on their ARM’s interest rate.

The option to refinance a FRM has received considerable attention from both academicians and practitioners. Although a significant portion of the academic research has taken the perspective of valuing mortgage backed securities, some research has addressed the issues of either sluggish or premature refinancing. Additional research has attempted to determine the underlying economic factors influencing household refinancing behavior. As a general rule, a household should refinance their FRM when mortgage rates have decreased by enough to allow the household to recover the associated transaction costs including the embedded value associated with the option to delay refinancing. However, as the earlier studies indicated, a degree of awareness and sophistication is required for a household to make the proper refinancing decision.

The Payment of Mortgage Points

At the point of mortgage origination, the mortgagor has an opportunity to negotiate some of the origination costs or closing costs and is presented the choice between various contracted interest rates and mortgage point combinations. While some of the origination costs are easily identifiable, Campbell (2006) contends that hidden costs are also important in the US mortgage markets. Some of these hidden costs include origination costs, mortgage broker fees in the form of points or an agreement to pay a higher contracted interest rate on the mortgage. The payment of points is essentially the prepayment of interest by the borrower at the time the mortgage is originated in exchange for a lower contracted interest rate over the life of the loan.
In deciding whether or not to pay points, the mortgagor needs to compare the present value of the savings on the loan to the present value of the points incorporating the tax deductibility of mortgage interest and any mortgage points paid. This calculation is somewhat complicated given that mortgage points may either be immediately or ratable deducted in income tax calculations depending on the particular scenario of the mortgagor. See Grayson and Basciano (2006) for a model that presents the relevant analysis.

While households may view points as an option in the mortgage process designed to benefit them by lowering their total after-tax costs of mortgage financing, Stanton and Wallace (1998) argue that mortgage points are designed to help deal with information asymmetry concerning the likelihood of the borrower prepaying a mortgage. At the point of mortgage origination, a mortgagor is likely to have better information concerning the probability of prepayment than the mortgagee. By offering mortgage points, mortgagees can better estimate the probability of prepayment. For example, a household that intends to move within a short period of time resulting in an early repayment of the mortgage will opt not to pay mortgage points. Conversely, a household anticipating a long-term holding period is more likely to pay points. As a result of the mortgagor’s selected combination of contract rate and mortgage points, the mortgagee has better information concerning the likelihood of prepayment. Dunn and Spatt (1985), Chari and Jagannathan (1989), Brueckner (1994), LeRoy (1996) and Stanton and Wallace (1998) are examples of literature that emphasize how the payment of mortgage points are utilized to address the adverse selection problem stemming from asymmetrical information. Dunn and Spatt (1985), Chen and Ling (1989) and Follain et al. (1992) explain that the interest rate spread and the mortgage points are a method of pricing the prepayment option embedded in a mortgage.

A different explanation for the existence of mortgage points is proposed by Kau and Keenan (1987). Evidence is provided that the particular tax treatment afforded both lenders and borrowers provide the explanation behind mortgage points. They contend that in the typical case, the borrower is subject to a higher marginal tax rate on income than a lender. Consequently, the combined tax burden of the borrower and lender can be reduced by the payment of mortgage points. The resultant tax savings can then be passed back through to the mortgagor in the form of a lower contracted interest rate.

Woodward (2003) argues that mortgage points provide an opportunity for mortgage brokers to confuse borrowers. This argument is supported by a finding that the average broker fees paid by borrowers who selected mortgage points was higher than those who opted not to pay mortgage points. Notably, it is also reported that the average broker fees were $2,500 and that college education is associated with an observed reduction of $1,500. Similarly, Campbell (2006) contends that “in a competitive market for mortgage broker services, broker fees may be lower for sophisticated households because of the high fees paid by naïve households” (p. 1589).
While the focus of the prior studies deals mainly with the reason why mortgage points are offered in the mortgage market, another stream of literature attempts to assist an individual in deciding whether or not to pay mortgage points. For example, Jessel, Carty and McDaniel (1986) present a framework to compare various mortgage alternatives offering differing combinations of discount points and contracted mortgage rates and advise the borrower to select the mortgage alternative offering the lowest after-tax effective interest rate given their specified holding period. Yohannes (1989) recommends calculating the present value break even point for each of the mortgage alternatives. Under this approach, the borrower calculates the after-tax cost of the discount points and the cumulative after-tax benefits derived from the lower contracted mortgage rate to determine the number of months required to break even.

Anderson, Barber and Chang (1994) report that the optimal mortgage product is predominantly a function of the borrower’s mortgage holding period and, to a lesser degree their marginal tax rate. In the case where a borrower is expected to hold a mortgage longer than ten years, they report that the optimal combination of contracted interest rate and mortgage points corresponds to the mortgage with the lowest APR. In situations where the expected holding period is under ten years, the borrower needs to calculate the present value of each available combination of contracted interest rate and mortgage points for their intended holding period and then select the combination with the greatest present value. Gardner and Clark (2003) argue for the inclusion of opportunity costs in the calculation of the present value break even point. Another application of their model is that it can be used to identify the required rate of return that results in an indifference point between the mortgage alternatives. Styron, Basciano, and Grayson (2005) and Grayson and Basciano (2006) extend the present value breakeven analysis methodology to incorporate both immediately and ratably deductible mortgage points.

Other Mortgage Products

The naivety and resultant considerable costs borne by unsophisticated households who fail to recognize the advantages (or disadvantages) of the terms of their mortgage agreements continue to prompt comment from both economists and financial analysts alike. According to economists, the incentive for financial innovators to offer a simpler contract that automatically adjusts interest and principal payments for inflation is apparent (Statman, 1982; Alm & Follian, 1984; McCulloch, 1986). To eliminate sluggish refinancing as well as dispense with the considerable costs associated with exercising refinancing options, Flesaker and Ronn (1993) and Nalebuff and Ayres (2003) have proposed an automatically refinancing nominal FRM. Brueckner (1984) proposes a “flexible mortgage [which is a] graduated-payment mortgage in
that the stream of payments is chosen to maximize an intertemporal utility function” (p. 137). Campbell and Cocco (2003) suggest that an inflation-indexed mortgage contract would remove the wealth risk associated with a nominal FRM, discussed earlier, without causing the labor income and interest rate risks present with a standard ARM contract.

Yet the innovations do not flourish in the retail markets despite the need for mortgage lenders to seek any advantage in this highly competitive industry. Campbell (2006) speculates that this is largely due to a market that lacks sophistication. “Unsophisticated households tend to use whatever financial contracts are standard…possibly because they follow the lead of relatives and neighbors” (p. 1586). Consequently, investing the marketing effort required for promotion and education of a new product to these consumers is not considered to be a cost beneficial pursuit given the lack of patent protection in the financial industry.

The prior discussion does not explain why alternative mortgage products that are targeted at sophisticated households have not emerged. Campbell (2006) provides an explanation of the lack of financial market innovation as follows:

the explanation here may be that existing products often involve a cross-subsidy from naive to sophisticated households. A refinancable FRM, for example, offers a low rate in part because many households do not optimally refinance. Sophisticated households gain by pooling with naive households, and will not be attracted to a new mortgage if it is only taken up by other sophisticated households (p. 1586).

Although perverse from an economic perspective, in this scenario a mortgage lender may actually have an incentive to mislead naive households by offering confusing products with higher fees. Campbell contends that “it may not pay competitors to reveal these hidden costs if sophisticated consumers have the ability to avoid them while still purchasing the products, which are cheaper because of the revenue provided by naive consumers” (p. 1588). This scenario is a “shrouded equilibrium” in which some consumers are unaware of the hidden costs associated with the mortgage product (Ellison, 2005; Gabiax & Liabson, 2006).

**Conclusion**

A potential mortgagor faces many complex financial decisions. At the time of mortgage origination, the household must decide its initial down-payment, select an appropriate mortgage term, choose between fixed rate and
adjustable rate loan products, and determine whether or not it is beneficial to pay mortgage points in exchange for a lower contracted interest rate. Further complicating these decisions are non-neutralities in the tax code, liquidity constraints, an uncertain holding period, intertemporal consumption tradeoffs, potential investment and portfolio allocation implications, and the mortgagor’s personal preferences, emotions and risk tolerance. All the while this complex decision occurs in a marketplace fraught with intentionally confusing options and products designed to either provide additional compensation for mortgage brokers or provide subsidies for sophisticated households at the expense of their less sophisticated counterparts.

The mortgagor faces several other significant decisions subsequent to those made in the initial mortgage selection process. Examples of these additional considerations include whether to accelerate the mortgage principal payments and whether to refinance the principal balance of the mortgage. Further, households face a related decision involving the potential extraction of their home’s equity.

Although all of these decisions involve a degree of complexity and result in potentially significant economic consequences for society, little academic research has addressed the mortgage selection process from the vantage point of the household. The importance of an educated consumer is evident in a recent research study that investigated borrowers in Washington State that obtained financing from a predatory lender. Moore (2003) reports that mortgage “victims were more likely to lack basic financial knowledge suggesting that they failed to understand the cost of their mortgage loans” (Cited in Campbell 2006, footnote 28, p. 1585). Given this finding and the noted complexities cited earlier in this paper, it is essential that financial research continues to identify and provide guidance on optimal mortgage decisions and that consumers receive appropriate advice to navigate this potential financial hazard.
References


Dalbar, Inc. issues 2001 update to “Quantitative analysis of investor behavior” report. [Electronic version]. Toronto:Author


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**Endnotes**

1 Reported to the Federal Reserve Board by lenders covered under the Home Mortgage Disclosure Act.

2 The tax deductibility of mortgage interest is limited if the total mortgage debt exceeds the market value of the mortgaged property, the total mortgage debt is greater than $1,000,000 (or $500,000 married filing separately) and if the mortgage interest results from an equity line with an outstanding balance greater than $100,000 (or $50,000 married filing separately).

3 In order to satisfy the use test, an individual must have used the property as a primary residence in two out of the past five years. The two years of use do not have to be contiguous to satisfy this requirement. Further, in the event of unforeseen circumstances, a prorated exclusion may apply.
The IRS permits an immediate deduction of mortgage points in the year incurred if they result from a purchase of a primary residence used as security for the mortgage. However, in the case of a mortgage resulting from the refinance of a primary residence, the points are required to be ratably deducted over the life of the loan. Note that an individual who lacks the ability to itemize deductions in the year of a home purchase can opt to ratably deduct the mortgage points. See IRC 461(g)(2) and revenue procedure 94-27 for more information.
Health Insurance and Personal Finance: Coverage Matters for Individuals and Families

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Abstract

Health insurance coverage is an essential component of a financial risk management strategy. Seminal theoretical perspectives regarding the consumer decision to obtain insurance have informed research into the causes and consequences of being uninsured. This paper reviews the empirical evidence from a rational choice perspective. Research suggests that being uninsured is associated with greater difficulty accessing medical services and a higher probability of choosing to delay or go without needed medical care. In addition, being uninsured is correlated with higher reports of other financial difficulties including being unable to pay for housing, transportation, and food. In some instances, families have needed to file for bankruptcy as a result of unmanageable medical expenses. This review shows that researchers, financial advisors, and consumers can all benefit from a better understanding of the complex array of private, public, and self insurance options available, as well as the consequences of being uninsured and the role health insurance plays in both improving health and managing financial risk.

Conventional wisdom and copious research suggest that adequate health insurance coverage is an essential component of a financial risk management plan (Institute of Medicine, 2001). Nevertheless, an estimated 47 million Americans (15.8%) were without health insurance in 2006 (DeNavas-Walt, Proctor, & Smith, 2007). The lack of health insurance significantly compromises one’s ability to access medical care (Ayanian, Weissman, Schneider, Ginsburg, & Zaslavsky, 2000; Institute of Medicine, 2002).
addition, the uninsured are less able to withstand financial shocks that often accompany unexpected or expensive medical needs (Institute of Medicine, 2003; Wielawski, 2000). The growth in health care costs is projected to continue to outpace inflation for other goods (Poisal et al., 2007) and to consume an ever larger share of household expenditures (U.S. Bureau of Labor Statistics, 2007). It is clear that a plan for managing the risk of increasing medical expenditures and maintaining affordable access to medical care is vital for one’s current and future financial security, and financial advisors are playing an increasingly important role in a rapidly changing health insurance marketplace (Hinds, 2005).

The lack of health insurance occurs for a variety of reasons as rational consumers assess the costs of coverage relative to the risks of being uninsured. While most Americans obtain health insurance from their own or a family member’s employer, estimates are that 15 million workers (excluding the self-employed) are uninsured. The primary reason reported for lacking employer-sponsored insurance is that the employer does not provide health benefits (Kaiser Commission on Medicaid and the Uninsured, 2004). Other workers are ineligible for employer-based coverage, typically because they have not yet worked for the employer long enough to be eligible. Still other uninsured workers are eligible for employer-sponsored insurance, but choose not to enroll for these benefits because they are too expensive. People who do not have access to employer-provided insurance typically have the option to purchase insurance in the individual (often called non-group) market. However, insurance in the individual market usually costs much more than comparable insurance from an employer. While employers have struggled to keep health care affordable for their employees, the complexity of the packages of benefits being provided is greater than ever before.

The current economic environment suggests that both medical care costs and the cost of health insurance will continue to increase at rates that outpace inflation (National Coalition on Health Care, 2007), suggesting that a growing number of rational consumers may opt to forego health insurance. For example, the average annual premium for a family of four increased more than $1000 (67%) between 2000 and 2005, and out of pocket expenditures increased an estimated 115% during this time (National Coalition on Health Care, 2007). By comparison, general inflation (CPI-U, all items) between 2000 and 2005 was 13.4% (U.S. Bureau of Labor Statistics, 2008). As part of this decision-making process, financial advisors have the responsibility of recommending appropriate risk management plans for individuals and families who may face periods without health insurance coverage. In this increasingly expensive and complex risk management environment, it is critical that financial advisors be well-versed in the array of private, public, and self insurance options available. In addition, because markets constantly change, financial advisors and consumers alike can benefit from an understanding of
the political and economic forces that shape the risk management options available to them.

This paper continues with a review of seminal research into the purpose of insurance. This is followed by a brief history of the unique tax treatment that consumers of health insurance enjoy when purchasing health insurance through an employer. Next, research that investigates the costs and benefits of health insurance is reviewed. This is followed by a discussion of implications for researchers who investigate the role of health insurance in the physical and financial well-being of individuals and families. Guidance for financial advisors who provide risk management education and advice completes the text. To place the research and implications into context, current data on health insurance coverage of individuals and families in the U.S. are referenced throughout.

**Review of Theoretical Perspectives and Seminal Research**

Previous research from neoclassical economists (e.g., Becker, 1965; Mincer 1963; Nyman, 2003), suggests that consumption decisions are affected by a number of factors, including those related to individual and household characteristics, household resources, and external factors related to their opportunities to purchase. Within an expected utility framework, households use their resources (human, physical and financial) to best satisfy their needs (maximize utility). In this review we focus on the need to maintain one’s health and the consumption decision to purchase health insurance in order to obtain affordable access to medical care.

The decision to purchase health insurance coverage reflects a consideration of the benefits of obtaining medical care relative to the costs of (1) receiving the care while uninsured and (2) receiving the care while insured and purchasing health insurance. The net financial benefit of being insured is the savings (reduced costs) related to obtaining medical care. For simplicity, consider the consumer decision to purchase health insurance that will cover all medical expenses for the insured. The likelihood that an individual will purchase this coverage hinges on at least four factors. First, the likelihood of purchasing increases with the probability that one will need medical care and, if so, how much care will be needed. Second, the likelihood of purchasing decreases as the cost of coverage increases. Third, the level of resources (e.g., income and wealth) available for satisfying needs also is important as a consumer ponders how to meet medical needs while simultaneously seeking to meet other current and long-term goals. In some respects, health insurance coverage is a normal good in that the likelihood of obtaining coverage increases as income and/or wealth increases. This relationship exists, in part, because of the desire to protect accumulated resources. However, it is possible that resources are plentiful enough that self-insuring is a more cost
effective strategy for meeting health care needs compared to paying a third party to share the risk. That is, the likelihood of obtaining coverage could eventually decrease at very high levels of income and wealth. Fourth, as it is uncertain whether or not someone will need medical care in the future, regardless of their past health history, the likelihood of purchase increases as the level of risk aversion (e.g., not wanting to have to forego medical care) of an individual increases.

The underlying premises of this simplified cost-benefit framework are not affected by incorporating additional complexity into the model. For example, consumers faced with a range of coverage options such as benefit packages available from employer-provided coverage, public insurance, and non-group coverage, will assess the benefits of each (e.g., specific coverages) relative to their costs (i.e., premiums, deductibles and co-payments). Similarly, as individuals see their likelihood of needing medical care change over time, or are faced with changing coverage options, their coverage status may change over time. Furthermore, the level of risk adversity may vary across family members. For example, parents may be willing to forego medical care, and thus forego being insured, but may not be willing to have their children go without health care coverage. In these instances, we would observe intra-family differences in coverage statuses.

This decision making process has been the foundation of health insurance research for many years. Friedman and Savage (1948) used an expected utility framework to determine that consumers prefer a small, certain loss over a large, uncertain loss, even when the losses are actuarially equal. As such, consumers use health insurance to minimize risk related to large medical care expenditures. Similarly, Arrow (1963) argued that if consumers were rational and risk-averse, then in a market that charged actuarially fair rates (i.e., the insurance premium is equal to the expected benefit—(see Phelps, 1997)) there was virtually no reason consumers would not obtain health insurance coverage through private or government insurance programs.

Ehrlich and Becker (1972) continued this line of research by outlining three potential responses to the possibility of a negative financial shock resulting from unanticipated medical expenses. One may purchase insurance in the market place; one may self-insure (i.e., appropriate funds in advance of a potential loss); and/or one may engage in self-protection (e.g. maintain a healthy diet or be immunized against a particular disease). From this perspective, market insurance and self-insurance are substitutes. That is, if the price of market insurance increases, the demand for self-insurance increases, all else equal. Ehrlich and Becker also note that the effects of market or self-insurance on self-protection vary because the prices of market and self-insurance depend on the probability of experiencing a loss. In other words, insurance premiums are higher for consumers who engage in more risky activities and
lower for consumers who engage in less risky (or health-promoting) activities. Later, Chang and Ehrlich (1985) demonstrated that market insurance and self-protection are generally complementary (i.e. an increase in demand for one is associated with an increase in demand for the other and vice versa), but having market insurance may also reduce self-protection.

Health insurance, then, is a product that reduces uncertainty by insuring against dramatic financial loss (Arrow, 1963; Ehrlich & Becker, 1972; Institute of Medicine, 2001; Jacobs & Rapoport, 2002; Phelps, 1997). However, health insurance may also reduce the probability of a dramatic financial loss by improving access to medical services and preventive care (Andersen, 1995; Institute of Medicine, 2001; Ross & Mirowsky, 2000).

**History of Employer-Based and Government-Provided Health Insurance**

Employers historically have been the primary source of health insurance coverage in the U.S. This is largely because health insurance premiums are paid with pre-tax dollars when purchased through an employer-sponsored plan. As shown in Tables 1 and 2, data from the 2007 Annual Social and Economic Supplement of the Current Population Survey indicate that the vast majority of Americans receive their health insurance coverage from their own, or a family member’s, employer-provided plan.
<table>
<thead>
<tr>
<th>Year</th>
<th>Total People</th>
<th>Total Uninsured</th>
<th>Total Insured</th>
<th>Total Private Based</th>
<th>Direct Purchase</th>
<th>Total Government</th>
<th>Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>296,824</td>
<td>46,995</td>
<td>249,829</td>
<td>201,690</td>
<td>177,152</td>
<td>27,066</td>
<td>80,270</td>
</tr>
<tr>
<td>2005</td>
<td>293,834</td>
<td>44,815</td>
<td>249,020</td>
<td>201,167</td>
<td>176,924</td>
<td>27,055</td>
<td>80,213</td>
</tr>
<tr>
<td>2004</td>
<td>291,166</td>
<td>43,498</td>
<td>247,669</td>
<td>200,924</td>
<td>176,247</td>
<td>27,551</td>
<td>79,486</td>
</tr>
<tr>
<td>2003</td>
<td>288,280</td>
<td>43,404</td>
<td>244,876</td>
<td>199,871</td>
<td>175,844</td>
<td>26,783</td>
<td>76,755</td>
</tr>
<tr>
<td>2002</td>
<td>285,933</td>
<td>42,019</td>
<td>243,914</td>
<td>200,891</td>
<td>177,095</td>
<td>26,846</td>
<td>73,624</td>
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<td>2001</td>
<td>282,082</td>
<td>39,760</td>
<td>242,322</td>
<td>201,695</td>
<td>178,261</td>
<td>26,309</td>
<td>71,295</td>
</tr>
<tr>
<td>2000</td>
<td>279,517</td>
<td>38,426</td>
<td>241,091</td>
<td>202,794</td>
<td>179,436</td>
<td>26,799</td>
<td>69,037</td>
</tr>
<tr>
<td>1999</td>
<td>276,804</td>
<td>38,767</td>
<td>238,037</td>
<td>200,721</td>
<td>176,838</td>
<td>27,731</td>
<td>67,683</td>
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<tr>
<td>1998</td>
<td>274,087</td>
<td>41,014</td>
<td>233,073</td>
<td>196,536</td>
<td>171,692</td>
<td>27,298</td>
<td>66,176</td>
</tr>
<tr>
<td>1997</td>
<td>271,743</td>
<td>42,943</td>
<td>228,800</td>
<td>192,507</td>
<td>170,105</td>
<td>26,165</td>
<td>66,087</td>
</tr>
<tr>
<td>1996</td>
<td>269,094</td>
<td>42,359</td>
<td>226,735</td>
<td>189,955</td>
<td>166,419</td>
<td>27,431</td>
<td>66,685</td>
</tr>
<tr>
<td>1995</td>
<td>266,792</td>
<td>41,093</td>
<td>225,699</td>
<td>188,224</td>
<td>164,096</td>
<td>28,419</td>
<td>69,000</td>
</tr>
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<td>1994</td>
<td>264,314</td>
<td>40,582</td>
<td>223,733</td>
<td>185,881</td>
<td>161,453</td>
<td>30,188</td>
<td>69,776</td>
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<td>1993</td>
<td>262,105</td>
<td>39,718</td>
<td>222,387</td>
<td>184,318</td>
<td>159,634</td>
<td>31,349</td>
<td>70,163</td>
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<td>1991</td>
<td>256,830</td>
<td>38,641</td>
<td>218,189</td>
<td>181,466</td>
<td>148,796</td>
<td>—</td>
<td>66,244</td>
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<tr>
<td>1990</td>
<td>251,447</td>
<td>35,445</td>
<td>216,003</td>
<td>181,375</td>
<td>150,077</td>
<td>—</td>
<td>63,882</td>
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<tr>
<td>1989</td>
<td>248,886</td>
<td>34,719</td>
<td>214,167</td>
<td>182,135</td>
<td>150,215</td>
<td>—</td>
<td>60,965</td>
</tr>
<tr>
<td>1988</td>
<td>246,191</td>
<td>33,385</td>
<td>212,807</td>
<td>183,610</td>
<td>151,644</td>
<td>—</td>
<td>57,382</td>
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<tr>
<td>1987</td>
<td>243,685</td>
<td>32,680</td>
<td>211,005</td>
<td>182,019</td>
<td>150,940</td>
<td>—</td>
<td>56,850</td>
</tr>
</tbody>
</table>

Note: Numbers in thousands.

Source: Table C-1 of the U.S. Census Bureau report P60-233 “Income, Poverty, and Health Insurance Coverage in the United States: 2006” (DeNavas-Walt et al., 2007).

1 Note that sources of insurance coverage are not mutually exclusive and may exceed 100% because a person may have more than one source of coverage. Includes SCHIP and other state health insurance sources.

2 Includes CHAMPUS (Comprehensive Health and Medical Plan for Uniformed Services), Tricare, CHAMPVA (Civilian Health and Medical Program of the Department of Veterans Affairs), and any care provided by the Health and Medical Program of the Department of Veterans Affairs, the Department of Veterans Affairs, or the military.
**Table 2**


<table>
<thead>
<tr>
<th>Year</th>
<th>Total Covered by Any Private and/or Government Health Insurance</th>
<th>Total Covered by Private Health Insurance</th>
<th>Total Covered by Government Health Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>100.0</td>
<td>15.8</td>
<td>84.2</td>
</tr>
<tr>
<td>2005</td>
<td>100.0</td>
<td>15.3</td>
<td>84.7</td>
</tr>
<tr>
<td>2004</td>
<td>100.0</td>
<td>14.9</td>
<td>85.1</td>
</tr>
<tr>
<td>2003</td>
<td>100.0</td>
<td>15.1</td>
<td>84.9</td>
</tr>
<tr>
<td>1999</td>
<td>100.0</td>
<td>13.4</td>
<td>86.6</td>
</tr>
<tr>
<td>1998</td>
<td>100.0</td>
<td>13.3</td>
<td>86.7</td>
</tr>
<tr>
<td>1997</td>
<td>100.0</td>
<td>12.9</td>
<td>87.1</td>
</tr>
<tr>
<td>1996</td>
<td>100.0</td>
<td>13.4</td>
<td>86.5</td>
</tr>
<tr>
<td>1995</td>
<td>100.0</td>
<td>13.3</td>
<td>86.7</td>
</tr>
<tr>
<td>1994</td>
<td>100.0</td>
<td>13.4</td>
<td>86.6</td>
</tr>
<tr>
<td>1993</td>
<td>100.0</td>
<td>13.4</td>
<td>86.6</td>
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<tr>
<td>1992</td>
<td>100.0</td>
<td>13.4</td>
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<td>1991</td>
<td>100.0</td>
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<td>86.6</td>
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<td>1990</td>
<td>100.0</td>
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<tr>
<td>1989</td>
<td>100.0</td>
<td>13.4</td>
<td>86.6</td>
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</table>

Source: Table C-1 of the U.S. Census Bureau report P60-233, "Income, Poverty, and Health Insurance Coverage in the United States: 2006" (DeNavas-Walt et al., 2007).

Note that sources of insurance coverage are not mutually exclusive and may exceed 100% because a person may have more than one source of coverage; includes SCHIP and other state health insurance sources.

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This practice of purchasing health insurance through an employer-sponsored plan grew from labor shortages immediately prior to and during World War II. Employers sought new ways to compete for workers during a period of wage freezes (Hacker, 2000). The growing practice of making health insurance available to employees as a pre-tax benefit was not officially endorsed by the federal government until 1943 when the National War Labor Board ruled that health insurance benefits were not considered wages (Fronstin, 2006). Later, the Internal Revenue Act of 1954 clarified earlier administrative rulings and codified the practice (Hacker, 2000; Santerre & Neun, 2000).

The effects of these rulings remain evident today. As reported in Table 2, in 2006, 177.2 million (59.7%) people benefited from the pre-tax treatment of health insurance benefits by receiving their health insurance from their own, or someone else’s, employer. Together with the 27 million (9.1%) who purchased insurance directly, 201.7 million (67.9%) people received their health insurance from a non-governmental source. As shown in Figure 1, the percentage of Americans who receive their health insurance from an employer has declined over the past two decades from a rate of 62.1% in 1987 to 59.7 in 2006. At the same time, coverage from government sources, including Medicaid (which includes State Child Health Insurance Programs (SCHIP) and other state operated health insurance programs for low-income people), Medicare and military health care, increased from 23.3% in 1987 to 27.0% in 2006.
Large employers (200 or more employees) are more likely to offer health insurance to their employees than small employers (Kaiser Family Foundation & Health Research and Educational Trust [Kaiser/HRET], 2006). Employers of all sizes are responding to rising costs by either cutting back on offers of health insurance to their employees or shifting more of the costs to employees (Glied, Lambrew, & Little, 2003; Kaiser/HRET, 2006). As noted in Figure 1, fewer workers and their families are obtaining insurance coverage from employers. The typical reason for this is increases in the workers’ share of the premium (Cooper & Schone, 1997, Kaiser Commission on Medicaid and the Uninsured, 2004). As a result, the likelihood that individuals and family members will be without employer-based insurance has increased.
Health Insurance Coverage

The Uninsured

An estimated 47 million Americans were without health insurance in 2006 (DeNavas-Walt, Proctor, & Smith, 2007). The decrease in the percentage of Americans receiving health insurance from an employer has generally been met by an increase in the percentage receiving health insurance from a government source. As a result, the proportion of Americans without health insurance has remained between 13-16% over the past two decades (see Table 2).

The most widely-cited estimates of health insurance coverage are obtained from the Annual Social and Economic Supplement to the Current Population Survey. Unfortunately, these cross-sectional data are widely acknowledged to over-estimate the number of people who are uninsured for an entire year (Nelson & Mills, 2001). Research using longitudinal data suggests that individuals’ spells without insurance are usually short in duration but are relatively common. In what may be the earliest work investigating health insurance dynamics, Swartz and colleagues (Swartz et al., 1993b; Swartz & McBride, 1990) found that spells without insurance average between six and seven months. A decade later, Nelson (2003) in a Congressional Budget Office report showed that 45% of individuals’ uninsured spells that began during a one-year reference period lasted less than five months, whereas only 16% lasted longer than 24 months.

Changes in Coverage

Changes in insurance coverage, whether they are movements into and out of insurance coverage or transitions from one type of insurance coverage to another, are common. Health insurance dynamics were first documented in the early 1990s by Swartz and colleagues (Swartz, Marcotte, & McBride, 1993a, 1993b; Swartz & McBride, 1990). Research by Short and Graefe (2003) showed that very few Americans go without an insurance status change over a four-year period. They found that one-third of the population age 64 and younger experienced at least one month without insurance during a 48-month period. Children age 18 or younger were found to be the most likely to experience repeated spells without health insurance (40% of children experienced repeated spells without insurance), whereas adults age 55-64 experienced the most frequent insurance transitions (13% experienced numerous insurance coverage changes). Research also has demonstrated that these changes in insurance status are particularly problematic for children who cycle in and out of eligibility for Medicaid and SCHIP (Sommers, Dubay, Blumberg, Blavin, & Czajka, 2007).
Estimates from the 2001 panel of the SIPP confirm that health insurance status changes remain relatively common even over a period as short as 12 months. As shown in Figure 2, 78.1% of the U.S. noninstitutionalized population (201 million people) were insured throughout all 12 months of 2003. The other 21.9% (74.9 million) were uninsured one or more months. An estimated 13.7% (35.3 million) experienced at least one transition into or out of insurance coverage and 8% (21.1 million) were uninsured each and every month in 2003. Reasons cited for insurance status changes include having an increasingly mobile workforce, changes in public assistance program participation and eligibility rules, and employer-provided and other coverage becoming increasingly unaffordable (Czajka & Olsen, 2000; Kaiser/HRET, 2006; Short & Graefe, 2003).

### Figure 2
**Health Insurance Coverage Patterns: 2003**

<table>
<thead>
<tr>
<th>Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always insured</td>
<td>78.1</td>
</tr>
<tr>
<td>Always uninsured</td>
<td>8.2</td>
</tr>
<tr>
<td>Transition into coverage</td>
<td>4.6</td>
</tr>
<tr>
<td>Transition out of coverage</td>
<td>4.7</td>
</tr>
<tr>
<td>Temporarily lose coverage</td>
<td>2.7</td>
</tr>
<tr>
<td>Temporarily gain coverage</td>
<td>1.3</td>
</tr>
<tr>
<td>Cycler</td>
<td>0.4</td>
</tr>
</tbody>
</table>

**Notes.** Authors’ calculations using 2001 panel of the Survey of Income and Program Participation (SIPP). Solid lines indicate periods with coverage, dashed lines indicate periods without coverage. n=58,771 individuals (257.4 million weighted) who are members of 23,411 households (103.3 million weighted). SIPP is comprised of four rotation groups. For this figure the 12 month period for rotation group 1 corresponds to the period from October, 2002 to September, 2003; data for rotation group 2 are from November, 2002 to October, 2003; data for rotation group 3 are from December, 2002 to November, 2003; data for rotation group 4 are from January, 2003 to December, 2003

**Non-Group Coverage**

Though most individuals receive health insurance through an employer or from a government source, Marquis and Long (1995) provide a good example of consumer demand for health insurance in the individual, or non-group, market. This portion of the market is relatively small—less than
10% of those who have insurance are covered by the non-group market (see Table 2)—and can be among the most challenging to insure due to affordability issues caused, in part, by higher administrative costs and inherent concerns about adverse selection (Pauly & Nichols, 2002).

Marquis and Long found that demand for health insurance in the non-group market was relatively insensitive to changes in both one’s income and the price of the insurance. As a result, efforts to induce employed but uninsured workers to purchase insurance likely would fail. Later work by Marquis and colleagues confirmed that consumers in the individual insurance market, much like consumers in employer-provided plans, seek generous benefit plans that reduce near-term costs, particularly among people who are already sick (Marquis et al., 2006). This increases concerns about adverse selection, which in this context describes an information asymmetry common in the non-group market where consumers have more information about their current health—or even the probability of contracting future health problems—than potential insurers. Because of the information asymmetry, the insurer is not able to charge an actuarially fair premium. A related concept, moral hazard, refers to a consumer’s propensity to engage in more risky behavior when insured by a third party than if the full financial responsibility lies with the consumer (Arrow, 1968; Pauly, 1968).

Recently, the introduction of Health Savings Accounts (HSAs), which are tax-exempt custodial accounts that individuals may create to pay for medical expenses, and high-deductible health plans (HDHPs), which are similar to traditional health insurance plans but carry deductibles of $1,100 or more for individuals and $2,200 for families, has created an even more complex risk management environment for consumers. For many consumers, however, the combination of the HDHP and HAS offers significant financial advantages over traditional health insurance plans. Hinds (2005) provides an excellent discussion of the benefits and costs of a HAS/HDHP health insurance strategy.

A characteristic of HSAs is that they are tax-free if used for medically-related expenditures before age 65, and remaining funds may be withdrawn without penalty after age 65. Recent papers from Cordell and Lemoine (2007) and Gardner and Welch (2007) offer introductions to the role financial advisors can play when assisting clients assess the benefits and costs of traditional health insurance plans and the HAS/HDHCP options.

Public Insurance

There have been similar efforts to estimate consumer demand for government-provided (public) health insurance. As shown in Table 2, approximately 27% of the insured population is insured through a government plan such as Medicare, Medicaid, Comprehensive Health and Medical Plan for...
uniformed services (champus) or tricare, state child health insurance program (sCHIP), and others. people insured by public programs must meet certain eligibility requirements, such as income or asset tests, group membership (e.g., veteran status), or meet age-based criteria to qualify for coverage. As a result, people eligible for public health insurance often remain uninsured due to a different set of costs—such as the challenges of enrollment procedures, confusion about eligibility, or inadequate information about the programs (see, for example, Cohen & Wolfe, 2001; Kaiser Commission on Medicaid and the Uninsured, 2000; Sommers et al., 2007).

Research by Galbraith and colleagues (2005) confirmed that Medicaid reduces one’s exposure to out of pocket medical expenditures that can be difficult for people with low incomes. They investigated the financial burden medical out of pocket expenditures placed on low-income Medicaid-participating and non-Medicaid participating families and found that full-year Medicaid coverage (or similar state-provided coverage) offered both medical care access and financial protection. That is, families with Medicaid coverage reported a higher probability of visiting physicians than families without Medicaid and a lower probability of reporting the need to choose between food or housing expenditures and needed medical care (Galbraith et al., 2005).

Collectively, the literature on government-provided insurance suggests that financial advisors working with clients who are eligible for government insurance can reduce health care costs to their clients by assisting them in obtaining government-provided health insurance coverage. In situations where the government insurance program has well-established procedures for people who experience certain landmark events, such as becoming eligible for Medicare at age 65, financial advisors may reduce the costs of obtaining coverage by anticipating the transition and developing a risk management plan that incorporates the changes brought about by the landmark event.

**Intra-Familial Insurance Patterns**

Investigations into the risks associated with being uninsured generally have not considered potential differences in coverage status of family members. In response to this, a young but rapidly-growing literature is investigating the circumstances in which families, and individuals within families, gain or lose coverage (Davidoff, Dubay, Kenney, & Yemane, 2003; Davidoff, Kenney, Dubay, & Yemane, 2001; Hanson, 1998, 2001; Lambrew, 2001; Nelson, 2003).

Davidoff et al. (2001) found that 22% of low-income children and 5% of higher-income children had insurance from a different insurer than their parents. Twenty percent of low-income and 5% of higher-income children lived in families where both the parent(s) and the child were uninsured. Davidoff and colleagues described this discordant insurance pattern, (e.g., the
child and primary parent have different sources of insurance) as a potential barrier to medical care access because parents, as medical care decision makers for their children, must learn to navigate a different medical care market in order to seek care for the child.

Similarly, Hanson (1998) investigated the nature of the relationship between parental-child insurance patterns within families and two measures of medical service utilization: any physician visits and the number of physician visits for children who had at least one. Hanson compared the number of physician visits by children who had either private or public health insurance and found that a child’s physician visits were most strongly predicted by the parent’s medical services utilization pattern, regardless of whether the child had public or private insurance. Although parental insurance from any source increased the number of visits to physicians by children, the presence of private insurance dramatically increased the likelihood that the child visited a physician in the first place relative to uninsured children.

Nielsen and Garasky (2008) found that adults who were members of families in which one or more members was ever uninsured during the preceding two years were 37% more likely to report fair or poor health than adults from families where each and every member was insured the full two years, even after controlling for the individual’s own insurance status. This suggests that both individual- and family-level coverage patterns over time are associated with health status. Also, Leininger and Ziol-Guest (2008) find that relative to children in two-parent or single-mother households, children in single-father families are more likely to be uninsured, have fewer well-care visits, and are less likely to have a usual source of care.

Taken as a whole, the evidence suggests that the insurance status of parents is closely tied to the medical care access and health of children. This literature supports the assertion that the family context must be considered when assessing the benefits and costs of health insurance, and that this context must be considered by financial advisors when counseling clients about the risks associated with the lack of health insurance for any family member. This research also suggests that because of the health and financial risk associated with partial-family coverage, financial advisors should advise clients to avoid the temptation to attempt to save money by insuring children but leaving an adult uninsured, particularly if the uninsured adult is the primary wage earner.

**Addressing Coverage Barriers**

**Pre-Existing Conditions**

In recent years, attention has been focused on individuals who cannot obtain health insurance through the private insurance market. For
example, pre-existing conditions make health insurance coverage unobtainable for many Americans despite the overwhelming array of private and public health insurance coverage options that are available (Achman & Chollet, 2001; Browne, 1997). These “uninsurable” individuals generally do not qualify for public health insurance, yet are unable to purchase health insurance in the private market because the actuarially fair market rate of their insurance is unaffordable for them. For these consumers, publicly-subsidized “high-risk pools” have been devised in 34 states to increase insurance availability (National Association of State Comprehensive Health Insurance Plans, 2007). Generally, high-risk pools are intended for people who meet one of several criteria, including having an insurance company reject an application because of poor current health or a previous medical condition; carrying a serious disease such as AIDS, leukemia, or Parkinson’s disease; having insurance terminated for a reason besides non-payment of premiums; or (in some states) incurring private insurance rates that are significantly higher than most consumers would pay for similar insurance coverage.

Efforts to insure high-risk individuals suffer from many of the same challenges as the individual insurance market, including barriers to obtaining insurance for consumers who likely are eligible for coverage, 6-month to 1-year waiting periods for new enrollees, and affordability problems for eligible consumers (Chollet, 2002). Still, for consumers who cannot purchase insurance in the individual market and are not eligible for means-tested government coverage, high-risk pools often are the best coverage option available (Moreno & Hoag, 2001; Schneck, 2000).

Terminated Employment

The Consolidated Omnibus Reconciliation Act (COBRA) of 1985 addresses employer-sponsored coverage for terminated employees. COBRA requires previous employers to inform employees of their right to purchase health insurance at an unsubsidized rate from their former employer after their employment has been ended (U.S. Department of Labor, 2007a). Without subsidies, coverage under a former employer’s health insurance plan can cost an individual as much as 102% of the full cost (employee premium plus the portion formerly paid by the employer) of the insurance coverage. This often presents a challenge for the potential insuree, as COBRA coverage is usually needed during a period of unemployment. Kapur and Marquis (2003) estimated that in 2001 a typical family’s COBRA premium was two-thirds the average unemployment check, making COBRA coverage largely unobtainable.

Indeed, estimates of COBRA take-up rates suggest that only 20% of all eligible former employees elect to continue their health insurance coverage under COBRA provisions (Davis & Schoen, 2003). Importantly, the majority of people who become unemployed leave employers who do not offer health
insurance as an employment benefit (Kapur & Marquis, 2003). Consequently, efforts to promote health insurance coverage that focus on COBRA coverage may largely be ineffective. Financial advisors should understand the cost of COBRA coverage so that adequate transitional savings in an emergency account can be set aside to ensure continuous insurance coverage for clients making voluntary or involuntary employment changes. Also, COBRA provides dependant coverage under certain conditions when family composition changes occur, such as through divorce, death, or loss of dependent status (U.S. Department of Labor, 2007a).

**Transitioning Employees**

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 makes it possible for many people who are transitioning from one employer’s insurance to that of another employer to change coverage with less exposure to preexisting condition restrictions (Health Insurance Portability and Accountability Act, 1996). HIPAA largely prohibits employers from refusing to insure people who were immediately insured previously under a group insurance plan (U.S. Department of Labor, 2007b).

HIPAA was enacted in response to perceptions that people were remaining in jobs and not advancing in their careers due to concerns about switching health insurance plans. Indeed, a comprehensive review of the “job-lock” literature suggested that employees do experience some measure of job-lock in the absence of HIPAA protections (Rashad & Sarpong, 2006). Labor economists are particularly concerned about this possibility, as optimal employment matches are less likely to occur when people are choosing jobs based on health insurance characteristics instead of employment-related criteria (Gruber & Madrian, 2002).

**Specific Conditions**

In addition to traditional comprehensive health insurance products purchased through an employer or in the private-purchase market, an ever-growing number of supplemental health insurance policies are being marketed to consumers who are concerned about the non-medical costs of fighting specific diseases. These “specified disease” or “dread disease” policies, such as cancer insurance, are marketed as products that assist consumers with paying expenses above and beyond what their comprehensive health insurance policies will pay (Nielsen & Mayer, 2000). Very little research has investigated the utility of specified disease policies. Evidence thus far suggests that in the case of cancer insurance policies, consumers and their advisors must carefully weigh the costs and likely benefits of insuring against non-medical costs associated with fighting major diseases (Bennett,
Weinberg, & Lieberman, 1998; Nielsen, Zick, Mayer, & Smith, 2001). Indeed, literature from the National Association of Insurance Commissioners tells consumers and their advisors to assess the benefits and costs of these policies with due skepticism, particularly if consumers do not first purchase a comprehensive health insurance policy (National Association of Insurance Commissioners, 2007).

Financial advisors are also in a unique position to provide clients with information necessary to make informed decisions about the purchase of long-term care insurance. Due to the uncertainty of one’s future need for long-term care, as well as the uncertainty associated with premium increases and policy changes of the long-term care policies, the assessment of the potential benefits (or conversely, the assessment of the risk of losses) can be exceedingly difficult. Lown & Palmer (2004) provide an excellent discussion of the benefit-cost assessments that financial advisors may use to guide clients through decisions about purchasing market insurance or self-insuring against the uncertain use of long-term care.

**Consequences of Lacking Health Insurance**

Research has focused on access to medical care, physical health and financial impacts when examining the consequences associated with being uninsured. This is understandable given the dual-protective function of health insurance to manage risks to one’s health, which reduces financial risk due to lost earnings resulting from poor health, and risks to one’s finances due to the direct costs associated with accessing medical care.

**Consequences for Medical Care Access and Physical Health**

The literature examining the effects of lacking health insurance on medical care access and physical health is voluminous (for a comprehensive review, see Institute of Medicine, 2001, 2003). Being uninsured has been found to be associated with greater difficulty in accessing primary or routine clinical services (Almeida, Dubay, & Ko, 2001; McWilliams, Zaslavsky, Meara, & Ayanian, 2003) and a higher probability of choosing to delay or go without needed medical care (Schoen & DesRoches, 2000; Strunk & Cunningham, 2002). These health care access challenges contribute to more frequent reports of poor health (Ayanian et al., 2000; Institute of Medicine, 2001; McWilliams et al., 2003; Ross & Mirowsky, 2000). In addition, the uninsured who delay medical care often face higher costs once care is sought, either because their health condition worsened or their provider charges uninsured patients higher fees than those with insurance (Ayanian et al., 2000; Walsh, 2004; Wielawski, 2000).
Financial Consequences

Research into the financial consequences of being without health insurance is relatively thin compared to the numerous studies documenting the effects of insurance status on medical care access and health status (see, however, Levy, 2002; Ross & Mirowsky, 2000; Schoen & DesRoches, 2000; Smith, 1999). Schoen and DesRoches’ (2000) work is a noteworthy exception. They explicitly investigated the effects of insurance status transitions over time on the financial well-being of the individuals experiencing them. Using reports of difficulty paying medical expenses as an indicator of financial well-being, Schoen and DesRoches found that the uninsured were two to three times more likely than those with continuous health insurance coverage to report health care access problems that were the result of their financial situation.

May and Cunningham (2004) estimate that 13.9% of families in the U.S. had problems paying medical bills in 2003. Of these families, two-thirds were fully-insured (each and every family member had insurance) for the full year. Also, 63% of the families that had problems paying medical bills reported that these financial difficulties resulted in other financial challenges including being unable to pay for other necessities such as housing, transportation, or food. Additional research suggests that people without insurance who have chronic health conditions also faced significant financial challenges; 45% (about 3.1 million) of those who reported having difficulty paying medical bills said that it affected their decisions to seek additional medical care or fill a prescription (Tu, 2004).

Researchers also have attempted to estimate the longer-term consequences on wealth associated with the lack of health insurance. Limited evidence suggests that insurance may serve as a buffer against dramatic financial loss from serious illness. Smith (1999) found among a sample of 50-60 year olds with serious health conditions that wealth declined for everyone after the onset of their condition, but health care spending varied dramatically depending on one’s health insurance status. Those with insurance had approximately $2,500 less in out of pocket expenses. In addition, total medical spending over a ten-year period after the onset of the condition varied with health insurance status. The insured spent approximately $27,000 including insurance premiums; the uninsured spent $42,000.

The debate regarding the degree to which rising medical debt levels contribute to “medical bankruptcy” among the insured and uninsured alike is ongoing (for an example, see Dranove & Millenson, 2006a; Dranove & Millenson, 2006b; Himmelstein, Warren, Thorne, & Woolhandler, 2006; Seifert & Rukavina, 2006). At issue is the extent to which medical debt contributes to consumer bankruptcy filings and whether the effect is unique compared with other sources of debt. Estimates of the share of bankruptcies caused by
medical debt are as high as 50% (Doty, Edwards, & Holmgren, 2005; Himmelstein, Warren, Thorne, & Woolhandler, 2005). More conservative estimates of the relationship suggest that medical debt is a contributing factor in as many as 17% of all personal bankruptcies (Dranove & Millenson, 2006b). Other research found no evidence that medical debt was different from other types of debt with respect to its contribution to bankruptcy filing (Fay, Hurst, & White, 2002).

Given the agreement among numerous researchers that medical debt levels are on the rise (Doty et al., 2005; Seifert & Rukavina, 2006; Tu, 2004), few would dispute that higher levels of debt are likely to continue to contribute to individuals filing for bankruptcy protections. Unfortunately, recent research offers little insight into the causal pathways of this relationship (Dranove & Millenson, 2006b; Fay et al., 2002; Gross & Souleles, 2002), leaving researchers ample opportunity to improve the research community’s understanding of these complex relationships, and practitioners the challenge of providing sound financial advice with little empirical guidance.

Implications for Researchers and Financial Advisors

When taken together, the available research suggests that health insurance coverage remains an important component of the risk management plans of individuals and families. Health insurance simultaneously protects one’s physical health by providing access to medical care while reducing the intensity of financial shocks that often accompany the onset of unexpected or expensive medical needs. As such, it is important that financial advisors and researchers be well-versed in the benefits and costs of being uninsured. In addition, researchers, financial advisors, and consumers can all benefit from understanding better the role health insurance plays in improving both physical and financial well-being.

This paper provided a review of the literature investigating the physical and financial consequences of lacking health insurance. Employers historically have been the primary source of health insurance coverage. This is changing, however, as employers reduce offers of insurance coverage, employee cost-sharing burdens become greater, and more people become eligible for government coverage. Research confirms that spells without insurance are relatively common for individuals, but usually are short in duration. In light of this, advisors should be aware of the ways in which temporary coverage is best secured given their client’s situation. For many, a brief period without insurance coverage may be a reasonable strategy given the costs associated with temporary coverage options. In addition, it is becoming more common for family members (e.g., children and parents) to have discordant sources of insurance. Nevertheless, being uninsured presents financial risks that should be clear to clients considering foregoing
insurance for some or all family members. Financial advisors should remind clients that in lieu of being uninsured, health insurance premiums can be reduced by choosing plans with higher deductibles and co-payments, and more restrictive medical care provider networks.

The financial consequences of being uninsured include paying more for services because health conditions worsened or because providers charge different fees for insured and uninsured patients. In addition, the uninsured are more likely to experience other financial difficulties such as being unable to pay for housing, transportation, or food, particularly if a medically-necessary event occurs. In the worst situations, families may need to file for bankruptcy as a result of unmanageable medical expenses.

Implications abound for researchers investigating the role of health insurance in enhancing the financial well-being of individuals and families. Given the increased mobility of the U.S. workforce and higher health insurance costs, there are ample opportunities for one to lose insurance coverage. Researchers are positioned to provide guidance to individuals and families who increasingly face insurance coverage transitions. Additional study is needed of the health insurance marketplace as private insurance products such as specified disease policies, or public insurance programs such as high-risk pools, become increasingly more complex. It is likely that financial advisors will increasingly be tapped to provide guidance about the utility of these insurance products. In many cases, these market changes may offer useful coverage for consumers, but to date the research evidence of these changes remains undeveloped.

As discussed, a complete understanding of the causal pathway of the most extreme financial consequence, growing medical debt that contributes to financial bankruptcy, remains elusive. Few dispute that medical debt is mounting for both the insured and the uninsured. However, research that explicates the unique contribution of medical debt on bankruptcy is needed.

This review also provided ample evidence to financial advisors that health insurance serves a vital role in protecting the financial well-being of individuals and families. In particular, research suggests that significant gains are available for fully-insured families, particularly for children. The evidence also suggests that maintaining coverage, particularly during employment transitions, provides financial protection that should be sought whenever possible, whether through public or private coverage. Finally, there is ample evidence to suggest that financial advisors should advise clients to plan for the growing out-of-pocket expenditures that accompany health events across the life course, even in the presence of full health insurance coverage.

Charupat and Deaves (2004) offered several strategies for financial advisors that are relevant to conversations about health insurance. For example, clients may need to be directed through conversations that emphasize a holistic and long-term view of how health insurance fits into their
financial goals. Given the current complexity of insurance coverage strategies and the movement toward increased consumer responsibility for health care spending decisions (Buntin et al., 2006; Everett & Anthony, 2005), financial advisors will need to rely even more on research. Research-based strategies will help consumers make better near-term decisions about medical expenditures and will better equip them to make long-term risk management plans. Because there appears to be “no ready answer to the cost of health insurance and health care” (Respess, 2003, p. 39), it is up to individual consumers and their financial advisors to plan appropriately for these increasing costs and added responsibilities.

References


Endnotes

1 Note that sources of insurance coverage are not mutually exclusive so totals exceed 100%.

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The Concept of Risk Tolerance in Personal Financial Planning

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Abstract
Assessment of risk tolerance is fundamental to proper asset allocation within a household portfolio. It is also a frequently misunderstood concept and difficult to measure practically. We discuss the relationship between risk aversion and portfolio recommendations based on an expected utility approach, review selected empirical research on risk tolerance, and propose to separate risk capacity, expectations, and other factors from the concept of risk tolerance.

Risk tolerance is an extremely important topic in financial planning. One financial planning textbook (Dalton & Dalton, 2004, p. 898) gave this definition:

The level of risk exposure with which an individual is comfortable; an estimate of the level of risk an investor is willing to accept in his or her investment portfolio.

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The textbook also listed ways to estimate a client’s risk tolerance (p. 464):

There are two common ways a planner estimates a client’s tolerance for risk. The first method is a clear understanding of the client and the client’s history with investment securities. The second method is to use a questionnaire designed to elicit feelings about risky assets and the comfort level of the client given certain changes in the portfolio. These two methods combined can guide the planner in assessing a client’s risk tolerance.

There have been many academic discussions of composite risk tolerance measures that include questions related to attitudes, current behavior, and feelings (Grable & Joo, 2004; Grable & Lytton, 2001; Roszkowski, Davey, & Grable, 2005; Roszkowski & Grable, 2005). It is also common in the business press to use the term “risk tolerance” to refer to investor feelings that might change with events and perceptions. For instance, in the Wall Street Journal, the following statement was made: “The risk tolerance of investors had been rising for many months, in part because there was a growing perception that the economy was becoming more stable” (Lahart, 2007).

Aversion to risk is what makes the study of capital markets interesting. Without risk aversion, all capital assets would be priced based on their expected payout and duration. Bonds would have the same yield over time as stocks and portfolio construction would simply be an exercise in organizing the timing of expected asset payoffs. The capital asset pricing model relies on the inclination to prefer less variation in asset returns.

Underlying the preference for reduced variation in returns is the notion that each additional dollar earned provides a little less happiness than the last. As our incomes increase, the satisfaction gained from consuming each additional $100 declines. This is represented by the concave slope of observed utility functions. A steeper slope implies greater aversion to risk because a loss hurts more in terms of utility than an equal dollar gain (see Hanna, 1989 for a simple introduction to utility and risk). When faced with an investment whose payout is variable, a risk-averse investor will require some added compensation for accepting uncertainty. This concept is operationalized in research (for example Barsky, Juster, Kimball, and Shapiro, 1997) as risk aversion (the inverse of risk tolerance.) When economists discuss risk aversion, they sometimes mean relative risk aversion. When faced with an investment whose payout is variable, a risk-averse investor will require some added compensation for accepting uncertainty. This concept is operationalized in research (for example Barsky, Juster, Kimball, and Shapiro, 1997) as risk aversion (the inverse of risk tolerance.) When economists discuss risk aversion, they sometimes mean relative risk aversion. When faced with an investment whose payout is variable, a risk-averse investor will require some added compensation for accepting uncertainty. This concept is operationalized in research (for example Barsky, Juster, Kimball, and Shapiro, 1997) as risk aversion (the inverse of risk tolerance.) When economists discuss risk aversion, they sometimes mean relative risk aversion.

During our lives we experience circumstances that impact our willingness to accept investment uncertainty. A young family may see the loss of $5,000 as a serious event that requires sacrifices to meet a budget and compromises
financial security. The same family later in life may have built up an investment portfolio large enough that the loss of $5,000 has little impact on their lifestyle. The perceived consequences of a loss may also vary among investors of the same means. Some have the ability to shrug off a loss to their portfolio while others fret during a bear market and become stressed after reading a negative quarterly statement. Every financial planner who adheres to standard financial planning practices must assess the risk tolerance of a client in order to make informed portfolio recommendations. The process of risk tolerance assessment is in its infancy.

Households in the United States have substantial levels of non-investment wealth, and investment portfolios typically amount to small proportions of total wealth when human wealth is included. Gutter (2000) found that for over 80% of U.S. households in 1998, investment assets amounted to less than 20% of total wealth. (The median level of total wealth was about $471,000.) The median proportion of investment assets to wealth increased with age, but was small even for those aged 65 and over.

Risk Tolerance as a Preference

Normative financial recommendations based on neoclassical economic theory suggests that differences in risky choices are closely tied to wealth, including human wealth, since resource availability reduces the relative impact of an investment loss (Hanna & Chen, 1997). Several normative analyses of portfolio recommendations show changes in the riskiness of portfolios of the lifecycle without resorting to the assumption that preferences change with age (Hanna & Chen, 1997; Campbell & Viceira, 2002; Cocco, Gomes, & Maenhout, 2005). For instance, Hanna and Chen’s simple model assumes that the investment portfolio is only for retirement. They showed that for a “typical” given level of risk aversion, the optimal portfolio proportion in stocks would be 100% when the investment portfolio was less than 20% of total wealth, including human wealth, regardless of risk tolerance. Then when the investment portfolio exceeded 20% of total wealth, the optimal stock proportion of the investment portfolio would gradually decrease until retirement. Other normative analyses have generally similar results, even though the analyses do not assume changes in risk preferences.

Two eminent economists, George Stigler and Gary Becker, proposed that “… tastes neither change capriciously nor differ importantly between people” (Stigler & Becker, 1977). The authors attempted to justify this audacious proposal with examples where the differing prices, income, and amounts of information available at different points in time or to different individuals could provide an explanation of why behaviors changed or were different between individuals, without resorting to differences in tastes as an explanation.
If risk tolerance is a preference, it might be related to gender differences due to genetic differences and/or very early socialization (e.g., Yao & Hanna, 2004). However, it seems unlikely that there should be differences in true risk tolerance based on racial/ethnic status, age, or education differences, yet those differences have been reported in studies using the investment risk tolerance measure in the Federal Reserve Board’s Survey of Consumer Finances (SCF). Yao, Gutter, and Hanna (2005) and Wang and Hanna (2007) found that Blacks and Hispanics were more likely than otherwise similar Whites to be unwilling to take investment risks, yet also more likely to be willing to take substantial risks. Responses to the SCF measure have changed over time (Yao, Hanna, & Lindamood, 2004; Wang & Hanna, 2007). Table 1 shows changes in the responses to the SCF risk tolerance measure, so if Stigler and Becker’s (1977) proposition is correct, the SCF risk tolerance measure might not really be a measure of preference.

Table 1
Percent of Respondents Choosing Risk Tolerance Levels, Surveys of Consumer Finances, 1992-2004

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<tr>
<td>Substantial</td>
<td>3.2</td>
<td>3.5</td>
<td>4.9*</td>
<td>4.5*</td>
<td>3.4*</td>
</tr>
<tr>
<td>Above average</td>
<td>11.0</td>
<td>13.6*</td>
<td>17.9*</td>
<td>18.2</td>
<td>15.9*</td>
</tr>
<tr>
<td>Average</td>
<td>35.9</td>
<td>37.2*</td>
<td>38.5*</td>
<td>37.4*</td>
<td>38.4*</td>
</tr>
<tr>
<td>No risk</td>
<td>49.8</td>
<td>45.7*</td>
<td>38.7*</td>
<td>39.8*</td>
<td>42.3*</td>
</tr>
<tr>
<td>High‡</td>
<td>14.3</td>
<td>17.1*</td>
<td>22.8*</td>
<td>22.8</td>
<td>19.3*</td>
</tr>
<tr>
<td>Some‡</td>
<td>50.2</td>
<td>54.3*</td>
<td>61.3*</td>
<td>60.2*</td>
<td>57.7*</td>
</tr>
<tr>
<td>Sample Size</td>
<td>3906</td>
<td>4299</td>
<td>4305</td>
<td>4442</td>
<td>4519</td>
</tr>
</tbody>
</table>

*Difference from previous year significant at the 5% level based on 2-tail t-test using repeated-imputation inference method combining five implicates of each dataset.  
‡High = Substantial + Above Average (Combined)  
Some = Substantial + Above Average + Average (Combined)


More sophisticated discussions of risk tolerance have considered the idea that there is a difference between an individual’s attitudes (preferences) and ability to tolerate risk. For instance, Cordell (2002) noted risk tolerance can be analyzed “…in two dimensions: risk attitude and risk capacity.” However, in many ways these multidimensional views of risk tolerance can be expressed in a classical expected utility framework.

Hanna and Chen (1997) differentiate subjective from objective risk tolerance. Their definition of objective risk tolerance is consistent with Cordell’s (2002) use of risk capacity, and subjective risk tolerance relates to
Barsky, Juster, Kimball, and Shapiro’s (1997) characterization of risk tolerance. It is only when the attitudes of investors of comparable wealth are compared that we can begin to observe variation in subjective preference for risk. Without accounting for wealth, we are measuring both the risk tolerance that is related to financial resource availability (risk capacity or objective risk tolerance) and the risk tolerance that is related to a true willingness to accept variation in asset returns (subjective risk tolerance).

Bakshi and Chen (1994) tested the lifecycle risk aversion hypothesis, that an investor’s relative risk aversion increases with age. However, they also tested the lifecycle investment hypothesis, that the investment needs of households will tend to be different at different ages, with buying a home and related durable goods being important when consumers are in their 20s and 30s, etc. Even though the Bakshi and Chen article is sometimes cited as providing evidence that risk aversion decreases with age, their analyses were based on the assumption that aggregate changes in the risk premium for equity assets were due to changes in risk aversion. Similar analyses of household survey data, e.g. Wang and Hanna (1997), were based on the assumption that differences in the risky asset proportion of wealth were related to differences in risk aversion.

A Model for the Determinants of Investment Choices

Empirical studies on investment choices may reflect influences other than true risk tolerance as defined by economists. Figure 1 shows a simple model of investment choices. Risk tolerance is the inverse of risk aversion, which Barsky et al. (1997) assumed can be measured by answers to a series of hypothetical income gamble questions (see also Hanna & Lindamood, 2004). Risk capacity might be related to the total household wealth and the current allocation of that portfolio, including human capital (Hanna & Chen, 1997) and its correlation with financial investments (Campbell & Viceira, 2002).

The effect of risk tolerance on optimal investment choices depends on risk capacity. According to Hanna and Chen’s (1997) analysis, all households with high risk capacity should have a risky portfolio, regardless of risk tolerance. Expectations might be related to education and assumptions about future asset return characteristics (Viceira, 2007), for example the expected equity premium and benefit from time diversification. Feelings about volatility tap into the notion that risk aversion can be disentangled from the intertemporal rate of substitution; that is, investors have attitudes about when they prefer to consume over time ( thrift or impatience) that are separable from their risk-aversion (Epstein & Zin, 1989).

Some measures of risk tolerance include all of the items on the left side of Figure 1. However, given that the expected utility model is the basis of stating that risk tolerance should be considered in portfolio recommendations,
only the first item shown in Figure 1 is consistent with the normative economic concept of risk tolerance. Economists have attempted to estimate the slope of the utility curve by asking respondents hypothetical questions about willingness to accept, for example, a 50/50 chance of a higher or lower income versus a certain income (Barsky et al., 1997; Hanna & Lindamood, 2004). Other examples of measures of individual risk aversion can be calculated from actual risk-related choices such as the proportion of risky assets within a portfolio or a contestant’s willingness to accept an offer on the television show “Deal or No Deal” (Post, Van Den Assem, Baltussen, & Thaler, 2008). Often these observations of actual risk-related decision making lead to the conclusion that many individuals do not act in a manner that would be predicted by expected utility theory. However, deviations from the predictions of expected utility theory do not necessarily imply that the normative guidance of expected utility theory is invalid. To the contrary, the fact that many people seem to be incapable of making good investment choices provides a justification for careful default choices for retirement plan participants (Beshears, Choi, Laibson, & Madrian, 2008) and for use of professional financial planner services.

**Figure 1**
**Conceptual Model of Investment Choices Involving Risk**

- Risk tolerance (inverse of risk aversion)
- Risk capacity
- Expectations
- Feelings about volatility
- Investment Choices
Assessment of risk tolerance in financial planning as a means of constructing optimal portfolios may be far more complex if preferences are inconsistent or if the disutility from an investment loss exceeds the utility from what could have been consumed with that money. An advisor may assume a 20% quarterly loss to be trivial on a $100,000 investment within a million dollar portfolio of a client with a long-run investing horizon, given its impact on expected future consumption. This advisor may also find herself with one fewer client if that client suffers from behavioral biases that show up consistently in empirical studies of risky financial choices, for example the tendency to overweight small losses and to frame each financial decision independently from an aggregate portfolio (Kahneman & Tversky, 1979).

In Post et al. (2008), risk aversion is observed to vary depending on prior outcomes. Those who had recently experienced bad luck suddenly became risk averse, and a string of good luck led to increasing risk tolerance. Sahm (2007) found that some variation in observed risk tolerance using the Barsky et al. (1997) measure available in the Health and Retirement Study (HRS) arose from current macroeconomic conditions. In an expanding economy, individuals were more risk tolerant. However, given the defects of the HRS measure noted by Hanna and Lindamood (2004), it is possible that the variation in responses to the HRS measure with changes in economic expectations were not indicative of true changes in risk tolerance, but rather changes in respondent’s assessments of the chances of finding another job if they lost the hypothetical income gamble.

Planners are placed in the unenviable position of having a fiduciary responsibility to construct a portfolio that may be considered efficient according to economic theory while simultaneously catering to the wishes of clients whose preference may not be at all consistent with that theory. Recommending a portfolio that will provide the highest return given the client’s goals and ability to withstand risk may require countering a client’s less rational tendencies through counseling. Playing to a client’s time varying risk aversion, on the other hand, may lead to unethical rent extraction through excessive investment shifting. If clients want to move money out of their mutual funds following a bad year and then move it back after a good year (or shift from growth to value or vice versa), advisors may have little incentive to talk clients out of demanding actions that generate additional transaction costs.

Implications for Research

It is important for researchers to disentangle other possible influences on investor choices from risk aversion. It is possible that hypothetical
income gamble questions such as those presented in the Health and Retirement Study (Barsky et al., 1997; Kimball, Sahm, & Shapiro, 2007) may produce a valid estimate of true risk aversion, though the cognitive complexity of the questions (Kimball, Sahm, & Shapiro, 2005) may distort the results. Any measure of risk tolerance/aversion that changes quickly over time should also be suspect as a measure of risk aversion since innate preferences (our utility function) should vary little over time. The hypothetical pension gamble questions proposed by Hanna and Lindamood (2004) may be superior to the HRS job risk questions, as they reduce the chance that respondents will imagine the possibility of finding another job if they lose the income gamble. The SCF measure of risk tolerance has changed over time, as shown in Table 1. Even multivariate analyses of this measure (Yao, Hanna, & Lindamood, 2004; Wang & Hanna, 2007) show that there have been significant changes over time.

The SCF measure, which asks respondents whether they are willing to take greater risk to achieve greater returns, may be an imperfect measure of risk tolerance, as people may be thinking of all four elements on the left side of Figure 1 in stating how much investment risk they would be willing to take. Figure 2 shows an empirical analysis of the relationship between answers to the SCF risk tolerance question and the net worth decile of households. The decreasing risk tolerance as net worth increases may reflect the increasing risk capacity of higher net worth households rather than higher true risk tolerance. The changes in risk tolerance over time (Table 1) may be related to changes in expectations rather than changes in true risk tolerance. Therefore, the SCF risk tolerance question and all composite risk tolerance indexes are imperfect measures of the concept of risk tolerance used by financial economists deriving optimal portfolio recommendations.
In determining the optimal risk exposure given a client’s preferences for risk, be it in risk management or portfolio allocation, financial planners can choose from a number of risk-tolerance questionnaires that may or may not be a true measure of the slope of the household’s utility function. In terms of Figure 1, financial planners should attempt to assess the risk tolerance of the client and the makeup of their current household portfolio (risk capacity), and educate clients about reasonable expectations. For instance, understanding the risk of a diversified portfolio versus an undiversified investment can help a client accept predictable return variation that arises from greater expected reward. Feelings about volatility may be related to expectations - for instance, investors who have suffered poor returns in the recent past may be more pessimistic when estimating future returns. Making assumptions about clients based on ad-hoc, rather than theory-based, measures of risk tolerance may lead to inappropriate recommendations as these measures have very limited validity in terms of portfolio theory.
Risk tolerance measures not based on theory may actually encourage behavioral biases, such as framing, by focusing on response to a single hypothetical investment without considering its impact on consumption when incorporated into the household’s current portfolio. Roszkowski (1992) recommends that financial planners follow their own advice and diversify their use of risk measures to hedge against the risk of one particular questionnaire measuring something other than simply risk aversion in the economic sense. Financial planners must be able to estimate a client’s risk tolerance in order to make appropriate investment recommendations.

Inappropriate assumptions about risk tolerance may be particularly harmful to clients who have limited experience with investing by themselves and/or the ability to draw from the experiences of family and social acquaintances. For example, minority groups including Blacks and Hispanics may appear to have low investment risk tolerance based on many measures of risk tolerance, yet have the same optimal portfolios as Whites in similar circumstances. Therefore it is crucial for financial planners, as well as researchers, to avoid using the term “risk tolerance” when in fact they are discussing a composite measure including components other than the true risk tolerance implied by modern portfolio theory. Viceira (2007) notes that there might be heterogeneity in investor risk tolerance, but also discussed the importance of objective characteristics such as the volatility of the investor’s earned income and the level of correlation between the investor’s earned income and equity returns. Financial planners should carefully consider the objective situation of each client when making investment recommendations, rather than relying on some composite measure of risk tolerance that is not linked to portfolio theory.

References


RETIREMENT SAVINGS ADEQUACY FOR THE BABY BOOM GENERATION

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ABSTRACT

This article provides financial practitioners and scholars with an overview of retirement preparedness in the U.S. along with recommendations for improving retirement security for Americans. The focus is on the 78 million baby boomers but contains implications for subsequent generations. Despite evidence of a retirement funding crisis, some researchers conclude the problem is overblown. Researchers differ on how to measure retirement income adequacy, whether to include and how to project health care expenses, and the role of housing equity, but agree on the groups most at risk. The consensus is that only half of baby boomers are financially prepared for retirement; one-fourth face challenges and the remaining one-fourth are at risk of poverty. Online retirement planning calculators and some studies may provide an overly optimistic picture of the boomer’s future. Retirees will need assistance in managing their assets during retirement. Recommendations for financial professionals, educators and individuals are provided.

Researchers from diverse academic fields have concluded that America’s 78 million baby boomers lack sufficient resources for potentially lengthy retirements. The 2008 Retirement Confidence Survey (Employee Benefit Research Institute [EBRI], 2008a) revealed a dramatic decline in American workers’ optimism about their retirement prospects. Clearly boomers have a big stake in the future of Social Security, yet according to the 2007 Retirement Confidence Survey (EBRI, 2007) many workers do not know that their full retirement age for Social Security benefits is older than 65. Despite these gloomy statistics, The New York Times featured a provocative article suggesting that many Americans may be saving too much for retirement (Darlin, 2007). Darlin quoted economists who claim that the retirement crisis is inflated by the financial services industry that is setting savings targets too high, to their own advantage.
What are the retirement prospects for America’s largest generation? With growing debt levels, the subprime mortgage fiasco draining home equity, rising energy prices, longer life spans, escalating health and long-term care costs, and high current consumption levels, many academics and policy makers fear the answer has negative consequences for the nation as well as the individuals who comprise the boomer generation.

**Purpose, Conceptual Framework and Organization**

This article reviews recent research on whether American baby boomers are investing sufficiently for potentially lengthy retirements. Most researchers concur that well-educated, high-income earners are adequately positioned for a comfortable retirement while single persons, minorities, the poorly educated, and many women face later life dependent on Social Security, Medicaid and Supplemental Security Income. But what about the majority of middle-class boomers?

The purpose of this article is to provide financial practitioners and scholars with an overview of retirement preparedness in the U.S. at the beginning of the 21st century along with recommendations for improving retirement security for Americans. While the focus is on the 78-million-strong baby boom generation that is beginning to retire, it also contains implications for subsequent generations. In addition, this article also explains why researchers have come to contrasting conclusions about the boomer retirement question. While public policy relating to the future of Social Security, Medicare, and Medicaid is critical to the question of retirement adequacy, it is not the main focus of this paper.

Most retirement adequacy research is based on the life cycle consumption smoothing model (Ando & Modigliani, 1963) which posits that individuals consume a constant percentage of their income as they progress through the life cycle. According to this theory, households borrow during early adulthood while they establish a career and buy a home. During the prime midlife earning years they repay borrowed money, pay down mortgages and save for retirement. In the final stage of life households dissave as they live off their savings during retirement. Yet this theory does not seem to reflect Americans’ increasing reliance on credit and growing debt burdens.

This article is organized as follows: a summary of recent changes affecting retirement is followed by the review of research literature and a discussion of how to assess retirement adequacy. Populations most at risk of inadequate retirement resources are identified. The next section examines the shifting landscape of retirement planning, with an emphasis on why it is not sufficient simply to project the future by examining the past. The discussion and implications section identifies strategies and solutions for planners and individuals. Recommendations for policy makers are addressed only briefly.
because they are covered extensively elsewhere (cf. Fore, 2003; Korczyk, 2008; Munnell, 2005; Weller, 2002; Wolff, 2002). The discussion and conclusions focus on research results that offer guidance to financial planning practitioners and educators, including suggestions for new and enhanced financial products for retirement.

The Shifting Landscape of Retirement Planning

Like an earthquake whose impact ripples outward from the epicenter, the retirement landscape is changing, gradually but inexorably in some areas but abruptly in others (Butrica, Iams, & Smith, 2003; Munnell, Webb, & Golub-Sass, 2007). Among the gradual changes are longer life spans translating into more years spent in retirement. When Social Security was introduced, few workers lived much past age 65. The Social Security full retirement age is increasing gradually so that many boomers will have to wait until as late as age 67 to collect full benefits. Despite receiving annual benefit estimate statements since 1999, most workers are not aware of this increase in the full retirement age (EBRI, 2007). Employers are steadily shifting from defined benefit pensions to defined contribution retirement plans where employees have to make the decision to contribute, decide how much to save, and then determine how to allocate their investments among plan options. Abrupt changes can occur when employers terminate pension plans or workers are unexpectedly laid off. Despite suggestions that older workers will be in demand as a surge of boomers begins to retire, many factors mitigate against this scenario (Munnell & Sass, 2008; Wessel, 2008).

Housing, Transportation, and Energy Costs

Rising costs affecting all Americans may affect retired persons more severely. Choices that seemed rational at the end of the 20th century will be unaffordable in the 21st century. Rising world-wide demand for energy is boosting costs to heat and cool the ever-larger homes that many Americans built far from commercial and service centers. With world oil demand pushing energy prices higher, these homes may not be desirable to younger buyers and may strand aging boomers in unaffordable homes far from public transportation and essential services. A paid-off mortgage may provide little comfort under these circumstances. Homeownership rates and equity are falling at the same time that rising oil prices are increasing the cost of living.
Health and Long-term Care Costs

In addition to the difficulty of projecting health status and expenses two decades into the future, the uncertainty over potential long-term care costs makes it almost impossible for individuals to determine whether they are on track for a comfortable retirement. Only recently have researchers estimated potential health care costs for retirees. Rappaport (2000) analyzed health care needs and costs of the elderly and programs to meet these growing needs. An analysis of health care costs and options for the elderly combines a complex web of private health insurance, employer programs, and government health care policies and programs. Rappaport predicted a series of many gradual changes in Medicare to adapt to increasing pressure on the program and a further decline in employer commitment to providing health insurance and retiree health benefits. Middle-aged and older Americans must anticipate and plan for rising health care needs and costs as they approach retirement; additional savings will be required to pay for the growing deficit between health needs and insured expenses (Rappaport).

Fronstin, Salisbury and VanDerhei (2008) calculated the present value of savings required to cover out-of-pocket health costs and insurance premiums during retirement. A couple who retire at age 65 and live an average life expectancy could need almost $199,000 for health insurance and out-of-pocket medical expenses while a couple living to 95 might spend $635,000 for health expenses. This estimate of $635,000 is about equal to the total estimated wealth of a typical household prior to retirement (Center for Retirement Research, n. d.). These projections do not include the costs of long-term care. A large portion of the elderly incur substantial medical expenses immediately prior to death, often depleting their assets (French, DeNardi, Jones, Baker, & Doctor, 2006), with dire consequences for a surviving spouse and taxpayers supporting Medicare and Medicaid.

Growing Debt Burdens

According to the Federal Reserve Board’s most recent Survey of Consumer Finances (Bucks, Kennickell, & Moore, 2006), from 2001 to 2004, debt levels increased for most demographic groups with the exception of renters, the youngest adults, and the bottom wealth quartile. The largest increase in borrowing was 11.1% for households headed by persons 75 and older. Median debt levels for households with debts rose 33.9% from 2001 to 2004 compared to 9.5% in 1998 to 2001 (Bucks, et al.).

The national savings rate has not exceeded 1% since the first quarter of 2005 (U.S. Department of Commerce, 2008) and the Federal Reserve Board’s triennial Survey of Consumer Finances (Bucks, et al. 2006) reports that only 56% of American households are saving. Based on the 2004 Survey of
Consumer Finances, the Center for Retirement Research at Boston College (no date) estimated the wealth holdings of a typical household prior to retirement at about $600,000; 42% of which is the present value of future Social Security benefits. One-fifth of the total ($125,000) is the value of the primary residence while only $87,000 consists of financial and defined contribution plan assets. Is this enough to fund a quarter century of retirement?

Review of Recent Retirement Adequacy Literature

The Employee Benefits Research Institute’s (EBRI) annual Retirement Confidence Survey (EBRI, 2008a) is the most comprehensive study of the attitudes and behavior of workers and retirees regarding saving, retirement planning, and financial security. According to the EBRI, while many workers recognize the retirement system is changing, too many are not adapting in ways that will ensure financial security in later life. Until the 18th report in 2008, the Retirement Confidence Survey [RCS] consistently revealed that Americans were overly optimistic about their retirement preparation. Prior to 2008 respondents admitted to low retirement account totals but blithely professed sunny prospects for their personal retirement future. It is too early to tell whether the 2008 report’s pessimism will translate into positive actions. The following review of literature focuses on the most recent studies, primarily from the past decade.

Studies Claiming Sufficient Retirement Resources

Using the 1992 Health and Retirement Study (HRS), Scholz, Seshadri, and Khitatrakun (2006) estimated whether Americans are saving enough for retirement. Using a life-cycle model they estimated wealth for each household in the nationally representative sample. The researchers incorporated assumptions about longevity, medical expenses, taxes, government programs, and pension and Social Security benefits. Their model accounted for 80% of the variation in wealth in 1992. They concluded that fewer than 20% of households have insufficient wealth for retirement, and for those households who are not saving enough, the deficit is minimal (Scholz, Seshadri, & Khitatrakun, 2006).

Love, Smith, and McNair (2007) analyzed households aged 51 and older in 2004 in a model that includes expected wealth from Social Security, defined benefit pensions, life insurance, annuities, welfare payments, and future labor earnings. They assessed the adequacy of wealth with two methods: an annuitized value of current wealth and a ratio of wealth to the present value of future poverty lines. They concluded that most older households will have sufficient resources for retirement, assuming current Social Security benefit levels. However, about 12% of households lack
sufficient wealth to live above the poverty line and about nine percent will be close to the poverty line (Love, et al.).

Engen, Gale, and Uccello (2005) also examined the adequacy of American households’ retirement savings using the 1992 Health and Retirement Survey (HRS) data coupled with Panel Study of Income Dynamics (PSID) data. Using a target income replacement ratio of 72%, they analyzed retirement savings adequacy using a “life-cycle model that allows for uncertainty in earnings and mortality” (p. 38). They concluded that more than half of married couple households where the husband works full-time had wealth-earnings ratios that exceeded the median target. Wealth accumulation was generally adequate except for households in the bottom quartile of the wealth-earnings distribution, where the findings were less conclusive and more pessimistic. The researchers recommended caution in interpreting the results. Also, they noted limitations in their ability to account for and measure the impact of a myriad factors that could affect the adequacy of savings. Engen, et al. warned of future retirement savings problems for the one-third of the boomer population who haven’t begun planning for retirement.

In sum, studies that claim there is no retirement savings crisis still conclude that about 20% of Americans are likely to face serious financial constraints. Even if the glass is 80% full, is that reason to be complacent?

Studies Showing Insufficient Retirement Resources

Despite the claim that Americans may be saving too much (Darlin, 2007), the most recent research literature is dominated by studies concluding that Americans are not saving enough. The consensus of researchers is that only about half of boomers are on track for a comfortable and financially secure retirement. While baby boomers are clearly at risk, Generation X which follows faces an even more dire future but has more time to adapt and compensate.

Based on changing economic and employment conditions, shifts from defined benefit to defined contribution retirement plans, and stock market losses, Weller (2002) and Wolfe (2002) paint a bleak future for American workers. Warshawsky and Ameriks (2000) concluded that the majority of Americans are behind schedule in investing for retirement. In a paper entitled “Do we have a retirement crisis in America?” Fore (2003) offered a comprehensive perspective on projections extending beyond the retirement question to encompass trends in military spending and other factors that will affect the federal budget in the coming decades. Of all the articles reviewed, Fore provides the most wide-reaching overview of the “retirement crisis,” incorporating savings rates, investment assets, sources of retirement income, reliance on Social Security, recent economic trends, and public policy. He supplements this essential information with data on the federal budget and changes in the
composition of federal spending, including defense spending, Social Security, Medicare and Medicaid. Fore concludes that America is divided in two with half having some retirement savings and the other half with none. For persons interested in the big picture, Fore’s seminal article is essential reading.

Using the Health and Retirement Study (HRS) Moore and Mitchell (2000) examined assets and savings for a sample of Americans nearing retirement to project levels of retirement wealth. They concluded that the median household nearing retirement would have wealth of about $400,000 but would need to save 16% of their income to maintain current consumption levels during retirement. As with most statistics, the median tells only part of the story: “this summary statistic conceals extraordinary heterogeneity in both assets and savings needs in the older population” (Moore & Mitchell, p. 68). Working longer was the most powerful action a household could pursue to reduce their retirement savings deficit.

Munnell (2005) reviewed the literature and summarized the results of multiple studies on retirement savings adequacy. Some trends that will affect future retirees are the shift from defined benefit to defined contribution plans and the projections for less generous Social Security benefits. Both these factors make it difficult to compare present retirees, many of whom depend on defined benefit retirement payouts and generous Social Security incomes, to cohorts approaching retirement. Munnell concluded that about half of baby boomers are well situated to accumulate sufficient wealth to maintain their lifestyle in retirement as long as they are willing to spend about half their home equity in retirement. She concluded that studies which assume the use of 100% of home equity make overly optimistic assessments of retirement preparation while those that ignore home equity are overly pessimistic.

Researchers at the Center for Retirement Research at Boston College developed the National Retirement Risk Index (NRRI) which projects that 35% of early boomers and 44% of late boomers are at risk of being unable to maintain their current living level in retirement (Munnell, Webb, & Delorme, 2006). The NRRI rises to 48% for Generation X.

The NRRI incorporates use of housing assets through a reverse mortgage to supplement pensions, Social Security, defined contribution plans and other assets. While 43% of the overall sample was at risk for retirement insecurity, the NRRI increases for each younger generation. The 43% estimate represents a best-case scenario; more realistic estimates based on reluctance to annuitize assets and spend housing equity suggest the percent facing a deficit will be much higher. The risk level ranged from 35% for early boomers to 44% for late boomers and 49% for Generation X. Single women are most at risk. The researchers attribute the increase in the at-risk population to changes in Social Security, lower interest rates, and the shift from defined benefit to defined contribution retirement plans.
Munnell, Soto, Webb, Golub-Sass, and Muldoon (2008) estimated that including the extra costs of health care in the NRRI raises the percentage of Americans at risk of inadequate retirement resources from 44% of households to 61%. Their figures are based on out-of-pocket expenses of $7,600 for a retired couple and the amount of an annuity that would be needed to cover these costs. In 2010, a couple would need an annuity of about $206,000 to cover retirement health care costs (Munnell, et al.). Long-term care costs are not included in these estimates. About two-thirds of retirees will need some type of long-term care, whether provided at home, in assisted living or in a nursing home or alternative care facility (Metlife Mature Market Institute, 2007). With nursing home costs averaging about $67,000/year for a semi-private room (Metlife Mature Market Institute), the implications for individuals, families and society are sobering. While most care for aging persons is provided at home by relatives, this may not hold true in the future. Even with creative new alternative ways of providing long-term care services, growing costs will further strain Medicare financing.

Assessing Retirement Adequacy Research

Despite the robust data available in the HRS, the financial landscape is changing rapidly and the earlier generation upon which the data are based does not necessarily reflect the attitudes and financial practices of the boomers, especially the younger segment of this generation. Care must be taken in extrapolating data from earlier cohorts to the boomers and beyond. Researchers and practitioners are also cautioned against assuming the future will be similar to the recent past. Munnell, et al. (2007) argue that participants in the 1992 HRS retired at a golden time and future retirees will face a very different economic environment. Fore (2003) provides a detailed portrait of the changing economic and policy landscape for retirees.

Although the HRS is a robust data set that is being expanded with new waves of older participants, studies based on the 1992 data reflect the values and experiences of persons born in 1931-1941, who are likely to differ in many respects from the boomers. Boomers are expected to live longer, are less likely to enjoy defined benefit pensions and retiree health care, are projected to receive a lower replacement percent from Social Security, and face higher tax rates in retirement due to the massive federal budget deficit. Other factors are changing to undermine the traditional planning approach of projecting retirement costs as a percentage of living expenses during working years. Health and long-term care costs are likely to outpace all projections based on spending a percentage of pre-retirement income.
Identifying At-Risk Populations

While researchers may disagree on the extent of retirement savings adequacy, there is widespread consensus on the groups most at risk of financial insecurity in retirement. Single persons, women, minorities, low income, low education, workers without an employer-sponsored retirement plan, and renters are all at risk of insufficient resources (Korczyk, 2008; Montalto, 2000; Munnell, 2004; Munnell, Golub-Sass, Soto, & Webb, 2008). Renters represented 21% of 55-64 year olds in 2004 (Center for Retirement Research, n.d.) so one in five pre-retirees does not have the financial security of homeownership and the potential to tap home equity in retirement. Individuals sharing multiple risk factors such as single, low-income, minority women will be most dependent on Social Security and other public programs.

The 40% of private sector workers, numbering 46 million, who lack an employer-sponsored retirement plan are at risk of retirement insecurity (Thayer, 2007). Thayer compared households who participate in a defined contribution plan to those who lack access to an employer-sponsored plan. While both groups are poorly prepared for retirement, workers lacking a retirement plan at work are the least prepared. These workers tend to be employed part-time, self-employed, less educated, lower income, 50 or older, and renters (Thayer). Thayer recommended that employers implement the automatic enrollment and contribution increases pioneered by Thaler and Benartzi (2004).

According to the 2007 Retirement Confidence Survey (EBRI, 2008a) women are consistently less confident than men that they will have enough money to live comfortably in retirement, that they are doing a good job of preparing financially for retirement, and that they will have sufficient funds for long-term care needs. Further, women score lower than men in retirement preparation actions such as having saved for retirement, having completed a retirement needs calculation, and in being on schedule in planning and saving.

Because women over 65 are twice as likely as older men to live in poverty, and women comprise a substantial majority of the elderly, Levine, Mitchell and Moore (2000) studied the influence of socioeconomic factors, rather than marital status change, on the financial well being of older women. Using the Health and Retirement Study (HRS), they examined how work history, health and time allocated to family affected retired women compared to men. Their findings show that older women have less income prior to and after retirement than older men; also, unmarried women are at particular risk of facing a retirement deficit. Women were in worse health, had weaker labor force histories, and devoted more time to caring for family members. About half of the projected deficit is explained by health and labor force history; allocation of time to family members is a weak predictor of well being.
Strengthening labor force participation of women is a major way to enhance financial well being of women in retirement (Levine, et al.).

Older minorities are more likely than whites to live in poverty. In a study using the HRS, Levine, et al. (2000) reported that nonwhites face a high risk of inadequate retirement assets due to much lower wealth than whites. However, wealth alone is not sufficient to project retirement income because Social Security and pensions are important contributors to financial security in retirement (Honing, 2000). Using the HRS, Honing incorporated Social Security and pensions into a wealth estimate to compare white, black and Hispanic households. Honig concluded that when Social Security and pensions are added to net financial wealth, the ethnic-racial wealth gap narrowed but median anticipated retirement wealth was still much greater for whites: $391,000 for whites, $189,000 for blacks, and $158,000 for Hispanic households.

Using the Survey of Consumer Finances, Finke, Huston, and Sharpe (2006) compared assets and debts of early boomers (born 1946-1957) to pre-boomers (born 1934-45) to dispel the myth of the profligate boomers overspending credit. While baby boomers’ debts and assets may be in line with the preceding generation, boomers face a rapidly changing landscape of declining pension coverage, rising health and long-term care costs, longer life expectancy, little or no support from employers to pay health costs in retirement, and looming crises in Social Security, Medicare and Medicaid. All three public programs face the onslaught of 78 million boomers with insufficient reserves and projected deficits.

Beyond personal wealth accumulation, Munnell (2005) evaluated the impact of potential Social Security benefit cuts represented by the increase in age for full retirement benefits and rising premiums for Medicare Part B. Regardless of proposed changes in Social Security, baby boomers will be facing a less generous payout in retirement. Another major concern for boomers is the challenge of managing 401(k) plan withdrawals which require more management than company pension plans that pay a monthly check. Munnell’s overall assessment of the retirement future for about half of boomers is a gloomy one.

At present, Munnell, et al. (2007) provide the most definitive and convincing assessment of retirement adequacy. On what grounds do they win the debate? They cogently argue that the data used by the “other side” depends too heavily on old data representing a previous generation who spent their working years in a bygone era. When evaluating the research it is essential to examine the age group and time period being studied. Researchers arguing that Americans are doing fine depend primarily on the 1992 Health and Retirement Study (HRS), the pre-boomers who are already retired. Born in 1931-41, this cohort came of age in the golden growth years of the 1950-60s when employers provided defined benefit pensions and retiree health insurance.
The bottom line, according to Munnell, et al. (2007) is that researchers who claim Americans may be oversaving for retirement were looking at older cohorts; the baby boomers, Generation X and subsequent generations are inadequately prepared for lengthy retirements with each succeeding generation in worse shape. While the financial services industry has been criticized for whipping up alarm about retirement adequacy to serve its bottom line (Darlin, 2007), erring on the side of enhanced financial security may be a gift to subsequent generations.

The most sobering yet thorough analysis of America’s “retirement crisis” is provided by Fore (2003). Fore summarized the status of retirement security for Americans by examining changes in pension coverage, the declining savings rate, changes in net worth, demographic shifts, the U.S. fiscal situation, and trends in federal spending. He characterized the U.S. as a bifurcated county with half its population making some contributions to retirement savings while the other half simply does not save. Will taxpayers be willing to sustain the levels of taxation needed to support this economic burden? Bolstered by a plethora of tables and graphs, Fore described the state of retirement income security in America, complete with an analysis of the simultaneous increase in the national deficit coinciding with the pressures on Social Security, Medicare, and Medicaid, as culminating in “a perfect storm of fiscal deterioration” (p. 9). Fore concludes that the country is divided between the half of households that have at least some savings for retirement and the rest who have none and will be dependent on social insurance programs. Fore’s analysis of the retirement funding landscape incorporates a thorough analysis of the prospects for future retirees by going far beyond household finances to include the funding problems facing Social Security, Medicare and Medicaid, and the mounting federal deficit. Not only are individuals falling short in preparing for the future, the U.S. government is incurring considerable new debt that will burden future generations. Although Fore hints at hard decisions ahead, he stops short of probing questions about how we will deal with the mounting inequality among retirees as the full weight of the baby boom hits.

The most recent and comprehensive assessment of retirement adequacy is provided by Korczyk (2008). She evaluated the measures used in research published since 2002 to assess the retirement preparation of the boomers with a focus on how retirement income adequacy is defined. Korczyk also provides a series of tables summarizing the conclusions, data bases and models used in recent studies. How adequacy is defined generally falls into three main categories: income replacement rate (post-retirement income in relation to pre-retirement earnings), intergenerational comparison (boomers’ retirement prospects compared to their parents’ generation at the same age), and savings and wealth adequacy (Korczyk).
Korczyk (2008) concurs with other researchers that half of boomers will do fine in retirement. The other half (39 million) face less than attractive prospects. While it has been suggested that up to 25% of boomers will not be able to afford to retire (Korczyk), it is debatable that this large number of older workers will truly have the choice to continue working (Munnell & Sass, 2008; Wessel, 2008). Poor physical and mental health, age discrimination, and a changing workplace argue against this prospect. Only self-employed workers control how long they will work and health problems can limit their choices as well. Whether or not working longer is a panacea, an unpleasant reality, or even an option for most workers is debatable; a few more years is practical while another decade may not be feasible.

While Korczyk (2008) concluded that “the news is generally good at both the top and the very bottom of the income distribution” (p. 24), the prospects for a comfortable old age for those at the bottom of the income distribution are based on income replacement ratios rather than retirement income adequacy. The lowest earners will surely suffer from insufficient purchasing power which will greatly limit their choices on where and how to live and obtain health care. Being able to replace 90% of an inadequate salary provides little comfort in old age. While wealth is not critical to life satisfaction, being unable to meet basic needs suggests that those at the bottom may not agree with Korzyck’s optimism about their prospects.

**Summary of Retirement Income Adequacy Research**

Most researchers conclude that a substantial minority of Americans are unprepared for financing lengthy retirements, especially if they expect to maintain current levels of consumption. While many of the studies assess adequacy based on a percentage of current expenditures, consumption in retirement is unlikely to be consistent from year to year. As Stein (1998) observed, many middle-income retirees aspire to an expensive and active early phase of retirement which can cost more than they spent during their final working years because of travel and splurges. The initial “go-go” phase is followed by a more sedentary mid-retirement phase with less travel and modest expenditures. For those retirees who remain in their own homes, expenditures in the final phase of life may be very modest (Stein). However, end-of-life-care costs can consume all remaining assets in the final years.

Even the most optimistic researchers are not claiming that all Americans are in good shape for retirement. The best-case scenario is that about 20% of workers approaching retirement are at risk of poverty or near poverty in old age (Scholz, et al., 2006). The worst case is that two-thirds of baby boomers will suffer a decline in living standards in retirement (Munnell, et al. 2008). In a concise four-page summary, The Congressional Budget Office (2003) provided an overview of baby boomer prospects for a comfortable
retirement. Projections are good for one half, grim for one-fourth, and uncertain for the remaining quarter of the cohort.

Keep in mind that all the projections of retirement adequacy are based on large groups. Hanna and Chen (2008) point out that economists can estimate the collective costs of retirement but lack the ability to project costs for individual households. The difficulties of estimating costs in retirement are the “weakest part of all retirement adequacy studies” (Hanna & Chen, 2008, p. 44). Thus individual households need to conduct their own assessments.

Although national data sets are invaluable tools for researchers, it is risky to extrapolate from the past and assume that the same trends will continue into the future. While the most recent data may be the best available, it may not reflect actual human behavior which may change over time. Projecting a future for the late boomers or Generation X based on behavior by current retirees may not be accurate due to the myriad changes in health care coverage in retirement, rapidly rising energy costs, longer life spans, and the changing economy.

**Discussion and Implications**

Disagreements as to whether baby boomers and subsequent cohorts are saving enough for retirement are based on how “enough” is defined, which data set is used, and which measures and assumptions are made about future expenses, rates of return, future payments from Social Security, and other variables. While some researchers choose staying out of poverty as their standard for “enough,” other studies use the measure of maintaining present consumption levels. How high you set the bar makes a big difference. Despite the wide range of assumptions, methods, data sets, etc., most researchers conclude that about half of boomers will be fine, a quarter will not be able to maintain current consumption levels, and about one-fourth will live in poverty or near-poverty in their final years. However, the most recent analysis by the Center for Retirement Research at Boston College factored in rising health care costs and concluded that 61% of households are at risk of not being able to maintain their pre-retirement level of living (Munnell, et al., 2008). Notably, their analysis does not include the potential costs of long-term care.

Many studies have addressed the extent to which Americans in general, and baby boomers specifically, are prepared for the financial costs of retirement. One of the most critical aspects of this question is whether or not the researchers include home equity as a financial asset to be consumed in retirement. Since the bulk of net worth for most Americans is the equity in their home, this assumption is a key factor.

Another unknown factor is whether it is realistic to maintain the consumption levels of peak earnings years during retirement. Low-income
persons are likely to need 100% or more of their highest income in order to maintain a decent level of living as health care expenses rise with age. However, moderate- and high-income earners could get by on less because they no longer need to invest for retirement and may have paid off their home mortgages. The final wild cards in the planning equation are longevity and health status. As life spans lengthen, many of today’s pre-retirees face three decades or more of living expenses.

If brought together to debate the topic, most researchers are likely to agree that there may be some boomers who are saving more than they need and that low income, low educational level, minorities, and women are subgroups at risk for poverty in later years. A single, poorly-educated, low-income minority woman is at high risk of dependence on government support in later life. Rational reasons for saving for more than projected needs include a family history of longevity, the desire to leave a bequest, plans for extensive travel, and other goals. So the argument is likely to generate little heat. At this point, this gathering of scholars might best spend its energy addressing the challenge of how to reduce the number of at-risk Americans and what policies could be implemented to encourage more savings and to support retirees who need assistance.

Who will be among the one-fourth of baby boomers who are projected to have inadequate resources in retirement? Low-income workers, renters, and single women are heavily concentrated in this bottom tier. They are also the workers most dependent upon Social Security retirement benefits. Single, low-income women who are not homeowners and do not participate in an employer-sponsored retirement plan are at great risk of poverty in later life.

**Recommendations for Addressing the Challenge**

Rather than continuing the debate over the percent at risk or how to measure retirement adequacy, future research and policy development should focus on how to help pre-retirees prepare for retirement and make the best decisions for their individual circumstances. A second area in need of scholarly attention is identifying creative solutions for how to use available resources to provide the best quality of life during retirement. Alternatives to single-person households will be more energy and resource efficient but may require a change in cultural expectations. Health care and long-term care costs are the biggest unknowns to which the principles of risk management need to be applied. Creative solutions and new financial products are essential to address the increased demand for services. Solutions may be found in examining other cultures that consume less and embrace multi-generational housing. Many of the following recommendations apply across categories: to individuals, educators, financial advisors and employers.
Individuals

In a society that emphasizes personal responsibility, the individual clearly bears the onus for ensuring financial security in retirement. An extensive body of personal financial planning literature addresses how much and where to invest for retirement to ensure long-term financial security. Recent studies provide specific guidelines on how much to save for retirement (Ibbotson, Xiong, Kreitler, Kreitler, & Chen, 2007; Walsh, 2003).

Future retirees will need to tap home equity (Munnell, et al. 2006), strategically annuitize some of their retirement assets (Ameriks, Veres, Warshawsky, 2001), plan for unpredictable health and long-term care costs, and make difficult decisions about investing and sophisticated new investment products. So while solutions are within reach for the majority of at-risk boomers, few will have the skills during the later phases of retirement to make decisions and implement these strategies without the help of a trusted financial professional and/or family member with sophisticated knowledge of a rapidly changing financial marketplace.

Challenges facing boomer retirees include higher costs, longer life spans, and housing and transportation challenges. Creative housing options may offer partial solutions for closing the gap between limited resources, assisted living needs, and unpredictable costs. While many homeowners do not want to convert home equity (Venti & Wise, 2001), financial reality is likely to dictate otherwise, especially for owners of the ever-larger homes that will become increasingly expensive to heat, cool, and maintain. Since many of these houses are far from shopping and medical services, transportation will be a challenge as fuel costs rise and physical and mental limitations prevent driving.

According to the National Retirement Risk Index, saving just 3% more and working just two years longer will substantially reduce the retirement funding gap for many workers (Munnell, et al. 2006). An individual’s planned retirement age is clearly one of the most significant determinants of whether there will be adequate wealth in retirement (Geistfeld, Li, & Montalto, 1996; Yuh Montalto, & Hanna, 1998; and Hanna, Montalto, & Yuh, 2000; Moore and Mitchell, 2000; Munnell & Sass, 2008). Geistfeld et al. found that given certain characteristics, an individual who planned to retire at age 65 or older had a 96% probability of having adequate resources for retirement versus a 59% probability for the same individual desiring to retire before age 60. The researchers noted that the main reason for this discrepancy is the availability of retirement funds at specific ages such as Social Security at age 62 (Geistfeld, et al.). Yuh et al. (1998) found that the most significant determinants in maintaining pre-retirement consumption were planned retirement age and spending less than one’s income during the working years. Clearly, working longer is a powerful factor in ensuring financial security in retirement.
(Moore & Mitchell, 2000; Munnell & Sass, 2008). Although individuals nearing retirement only had slightly more wealth, on average, than those in their 50s, suggesting that proximity to retirement is not significant in predicting retirement preparation (Bajtelsmit & Bernasek, 2001), a couple more years of employment at peak wages can make a difference in Social Security benefits and retirement plan contributions. In their book *Working Longer* Munnell and Sass (2008) describe how working just a few more years and thus moving the average retirement age from 63 to 66 will resolve many of the issues for individuals and for the government programs that help support retirees. This recommendation to work a few more years is consistent with lengthening life spans.

**Employers**

Sporting the catchy title “$100 bills on the sidewalk,” Choi, Laibson, and Madrian (2005) illustrate the difficulties in reaching older “undersavers” (age 59 ½ and older) who fail to take advantage of employer matching when they could immediately withdraw the money with no penalty, leaving the money on the metaphorical sidewalk. Despite concerted efforts to inform and educate workers about the value of retirement savings, a minority of workers apparently resists all appeals.

Behavioral economists have revealed the tendency among retirement plan participants to follow the path of least resistance (Thaler & Benartzi, 2007). Plan designers and administrators need to make it as easy as possible to participate with automatic sign up, automatic increases in contributions with each raise, simple investment options, and employee financial education (Thaler & Benartzi, 2004). Incorporating the results of behavioral economics research into the design of retirement plans is essential to increase plan participation and savings rates. With passage of the Pension Protection Act of 2006 Congress endorsed the behavioral finance strategies of automatic enrollment and automatic increases in 401(k) contributions (DiCenzo, 2007). Olsen and Whitman (2007) summarize the literature on best practices for designing retirement savings plans as well as the most effective workplace financial education programs: options for enrollment, appropriate investment choices, employer contribution matches, and suitable distribution options during employment and retirement. While these new policies are beneficial to workers with employer-sponsored plans, almost half of U.S. workers do not have access to a retirement plan at work (EBRI, 2008b). Government needs to play a larger role in encouraging or mandating employers to offer retirement plans.
Educators

Americans need more and better retirement planning education which incorporates the principles of economic psychology. It is not sufficient to simply convey information; most workers need individualized follow-up help to run a computer analysis of their financial future, to interpret the results, and to determine the most effective ways to implement recommendations. Korczyk (2008) identified the need for research on what retirement education boomers need and the most effective delivery methods.

Efforts to educate Americans about the rising age (from 65 to 67) for full Social Security retirement benefits have failed while misperceptions about the future of Social Security abound (Korczyk, 2008; EBRI, 2008b). Although the media can be blamed for part of this problem, educators should not use 65 as the default retirement age. Instead, use age 67 (or a range of ages) for educational and planning purposes. Working just few years longer, to 66 instead of 63, is one of the simplest prescriptions to aid boomers in making ends meet in retirement (Munnell & Sass, 2008).

Olsen and Whitman (2007) state, “Without a successful plan design, financial education will not be effective and even a well-structured plan can fail to achieve retirement savings goals without financial education. In addition, employers control the core aspects of financial education, such as the topics covered, the delivery methods used, the frequency with which it is offered, and its general availability” (p. 53). Thayer (2007) identified workers lacking employer retirement plans as particularly in need of retirement planning education. Yet many of these workers are low earners and may not have sufficient income to invest for retirement. Others work for very small companies that may find it difficult to provide suitable education.

The subprime mortgage problem and rising living costs are tempting more workers to cash out or borrow against their retirement accounts (Needleman, 2008). Early lump-sum distributions from retirement plans when changing jobs may lower that average retiree’s annual income by as much as $3,000 (Burman, Coe, & Gale, 1999). Educators and employers need to team up to inform employees of the risk of cashing out early.

Financial educators need to stay abreast of the latest research on retirement planning, new products, and incorporate economic psychology strategies into their educational programs. Perhaps the biggest educational challenge is how to motivate workers to plan for the future when so many needs and wants demand attention today. Goetz and James (2008) explain the new field of neuroeconomics, which goes beyond behavioral economics, as it applies to financial planning.

Consumers need guidance from educators on how to plan for potentially high medical and long-term care costs which are typically not included in on-line retirement calculators. Most of these on-line tools are...
based on replacing a percentage of current income, ignoring the much higher health care costs that typically come with advancing age.

Although individual retirement accounts (IRAs) have been available since the early 80s, only 40% of households own IRAs, most funded by rollovers from employer-sponsored programs (Holden & Bogdan, 2008). In 2006, only 14% of households contributed to IRAs. Since the average federal tax refund is about $200/month, educators and financial advisors need to encourage workers to adjust their tax withholding and set up an automatic contribution to an IRA.

Despite the plethora of on-line calculators, only 47% of workers had tried to calculate how much money they would need in retirement (EBRIa). Perhaps the results of the 2008 Retirement Confidence Survey (EBRIa) indicating high levels of concern over health care costs will motivate workers to save more for retirement.

Financial Services Industry

While financial advisors have access to computer programs to calculate projected needs for their clients, these calculations need to incorporate projected longevity and unpredictable health care costs. For clients with sufficient resources, long-term care insurance and living trusts can ensure that assets are protected while long-term care needs are met. With health care and long-term care costs rising faster than overall inflation, and both Medicare and Medicaid in precarious funding situations, health and long-term care expenses loom ominously over the household and national budgets. Creative ways of providing and paying for elder care are needed but are beyond the scope of this article. Financial advisors will need to use more sophisticated measures of retirement income adequacy and multiple measures when assessing future retirement funding adequacy.

New and creative products to convert home equity to income, to annuitize retirement accounts, to provide affordable health care and long-term care options will develop. The financial services industry is responding to the growing demand for creative and affordable products to ensure financial security for lengthy retirements. Few consumers have the skills and confidence to examine all their options and make the best choices without the assistance of a financial advisor. Campbell (2006) observed that low-income and low-education level investors need help to avoid mistakes with complicated investments. Using mortgages as an example, Campbell demonstrated that some financial products provide a transfer or subsidy from naïve to sophisticated investors.

Tapping home equity will be critical in enabling the middle class to make ends meet in retirement since housing equity is the single largest asset for most homeowners (Munnell, et al., 2006). In addition to education to help
them understand reverse mortgages, consumers will need individualized assistance to select the best options and determine the most auspicious time to tap their equity. While reverse mortgages are becoming more popular, they carry very high costs and risks. Annuities are another financial product that can help insure against outliving one’s resources (Ameriks, et al., 2001; Munnell, 2005) but consumers have been reluctant to embrace them. Variations on reverse mortgages and immediate annuities are likely to offer more options to future retirees. These products share the characteristics of requiring an irreversible decision and typically are sold by commission-based sales personnel who may not have the consumer’s best interest in mind.

Long-term care insurance will evolve to better meet consumer needs and resources. Options for long-term care will increase as demand soars and few consumers can afford to pay for nursing home costs while others need assistance but do not require nursing home care. More options for congregate care situations will evolve.

In sum, there is a great need for innovative and affordable solutions to the challenges of baby boomers. Financial products are likely to become more flexible and creative, and the professionals to guide consumers as they make these choices will be in great demand. Relatively few retirees have the skills or inclination to decide how to invest their life savings to cover unpredictable needs during retirement. As more retirees live past 80 they are likely to need help in managing their finances. The demand for fee-only financial planning advice will grow. Like attorneys, who are expected to provide pro-bono services, financial advisors and educators need to provide free services to the needy.

Public Policy Considerations

While not the focus of this article, policy decisions are critical to meeting retirement needs. The single most important policy action is for Congress to address the projected shortfalls in Social Security. In The Social Security Fit-It Book (Sass, Munnell, & Eschtruth, 2007) researchers at the Center for Retirement Research have laid out the costs and impacts of various adjustments to ensure the ability of Social Security to maintain current payment levels for the next 75 years. These changes are vital to the most vulnerable groups. The financing problems facing Medicare and Medicaid are even more imminent. Universal health care and long-term care could spread the risks throughout society. Ensuring dignity to the vulnerable elderly is a societal obligation that can only be provided by more generous government programs available to all.

In 2006 only 50.0% of American workers had access to a retirement plan through their employer or union; the percent of all workers participating in a retirement plan at work dropped from 40.9% in 2005 to 39.7% in 2006.
This lack of access to an employer-sponsored retirement plan is clearly a public policy issue. While providing strong evidence of the need to strengthen Social Security, the low rate at which employers offer plans is clearly a big part of the retirement adequacy problem. Perhaps the most telling assessment of the policy implications is offered by Korczyk (2008) who points out the potentially crushing economic burden on the smaller Generation X if boomers place a large burden on society during their retirement.

Conclusions

Research on the retirement adequacy question concurs that half of boomers are well positioned for a comfortable retirement, one fourth are at risk of a funding deficit, and the remaining fourth will be dependent on public programs. Whether the glass is half empty or half full depends on one’s perspective.

While many middle- and upper-income earners may have to scale back retirement dreams, many will adjust to lowered incomes, later retirement dates or a phased retirement. Whatever the adjustment, many middle-class retirees will be able to finance a comfortable retirement as long as they can avoid high health and long-term care costs. Those most at risk of failing to be able to fund an adequate retirement are those with lower education, less wealth, and persons lacking an employment-related pension. Single minority women, in particular, are at risk of living in poverty in their final years.

Is this situation good enough for the growing ranks of retirees and those who help support them, either directly or indirectly, through taxes and public programs? With this mixed perspective for the aging boomers, the best advice, if not the final word at this point in time, comes from Munnell and Sass (2008): work a few years longer. Individuals, educators, employers and financial advisors can use this advice to improve financial security in later life.

Another part of the answer resides in policy solutions which may include higher taxes, more mandates for employer-sponsored retirement plans, and creative responses to the challenges of providing care, housing and transportation in non-traditional ways. Congress must act soon to shore up the financial prospects of Social Security, Medicare and Medicaid.

While there is no consensus on the best way to measure retirement preparation adequacy, researchers using different methods come to remarkably similar conclusions. The consensus is that about half of boomers are well positioned financially for a comfortable retirement. But the other 39 million may face moderate to severe challenges in trying to maintain their pre-retirement levels of consumption. Further, the entire generation will face choices and challenges with which they will need professional guidance in the form of education and advice. Whether addressing the needs of the financially secure in search of guidance in making the best choices, the one-fourth...
teetering on the edge of financial security, or the 19 million facing grim choices, opportunities abound for professionals serving this cohort of pre-retirees at the present and through the decades of their later life.

References


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Can a book that was primarily written by researchers for researchers possibly be useful to financial advisors? The answer is an unqualified “yes.” *Handbook of Consumer Finance Research* provides a thorough discussion of 25 consumer finance topics, several of which are especially germane to the work of practitioners (e.g., investment risk tolerance, retirement savings, and characteristics of special populations). The book includes useful information to better understand characteristics of potential clients, how they think and act, and specific ways to better serve them.

Sharon DeVaney wrote a thorough chapter by chapter review and description of this 424-page book that can be found in *Financial Counseling and Planning*. (See Issue 19(1) at www.afcpe.org for additional information about this publication.) In contrast, this review discusses the *Handbook of Consumer Finance Research* with respect to its usefulness to those who make their livelihood by counseling others about their finances. In other words, this review focuses on the book’s usefulness for consumers of research rather than for the target audience of academics and researchers.
Edited by Jing J. Xiao, a professor at the University of Rhode Island, *Handbook of Consumer Finance Research* was written by 25 consumer finance researchers and educators and reviewed by 25 of their peers. In other words, some of the best minds in the field of financial education and research helped inform its content. The *Handbook* consists of 25 self-contained chapters on topics that include personal financial wellness, online banking, workplace financial education, marriage and finance, and consumer bankruptcy. It is organized into four parts: *Concepts and Theories of Consumer Finance* (6 chapters), *Internet and Consumer Finance* (3 chapters), *Consumer Finances of Special Populations* (9 chapters), and *Consumer Finance in Various Settings* (7 chapters).

In the preface to the *Handbook*, Editor Xiao describes the book’s objective as follows: “to summarize research findings and point out future directions.” By doing so, it can help “consumer finance researchers, policymakers, educators, and practitioners to design, implement, and evaluate financial education and research initiatives.” Each of the chapter authors was given the assignment of reviewing the literature on their topic and providing implications for the use of the research findings as well as suggestions for future studies. Each chapter is well-written and meticulously researched with a brief abstract, a thorough literature review, and pages of references that document each citation. Several of the chapters also contain findings from the authors’ personal research studies.

As expected of a research-oriented publication, the *Handbook* contains its fair share of theoretical models, mathematical equations, and other statistical analyses. Many articles contain pages of tables that present the results of particular studies. Some of these sections may be beyond what practitioners want to know or take the time to read and that’s okay. The real value of each chapter is its comprehensive synthesis of what researchers have learned about each consumer finance topic. For example, in Chapter 1, well-known risk tolerance researcher, John Grable, a professor at Kansas State University, provides a very complete summary of risk tolerance research findings and behavioral finance concepts (e.g., prospect theory) that relate to risk tolerance. He also describes a single question from the Survey of Consumer Finances that has been used to assess risk tolerance.

In Chapter 19, author Deanna Sharpe of the University of Missouri-Columbia discusses consumer financial issues in health care. Not only does this chapter provide a thorough review of the types of available health care programs, including managed care and consumer-driven health care, but it also describes the “crowding out” effect of health care that has been documented in recent studies. In other words, increasing health care costs have caused some consumers to cut back on other household budget items, including retirement savings and, in some cases, basic necessities.
In addition to comprehensive literature reviews, another valuable feature of the Handbook, for financial advisors, is in-depth description of special population groups as well as situations where consumer finance issues are addressed. In the former category, there are individual chapters on high school and college students, older adults, low-income families, small business owners, Hispanics, African-Americans, and Asian Americans. In the latter category, the Handbook discusses topics such as health care, marriage, parent-child communication about finances, and workplace financial education. There is a wealth of data for financial advisors who are interested in any of these topics to better understand their clients or improve their marketing strategies. For example, the Handbook could be a valuable resource when preparing public presentations or newspaper and newsletter articles on consumer finance topics.

At the end of each chapter, authors were asked to comment on future directions related to their topic. While their comments were primarily directed toward other researchers, with suggestions for future research issues and/or methodologies, some chapter summaries also made recommendations that are useful for educators and financial advisors. Following are some specific “practitioner-oriented” suggestions that were gleaned from the chapter summaries:

- Use a standardized scale to measure the financial wellness of individuals and families (Chapter 2)
- Provide more information about estimating spending needs in retirement (Chapter 3)
- Integrate a strong evaluation component into financial education programs (Chapter 4)
- Develop self-help Web sites to help motivated consumers change undesirable behaviors (Chapter 5)
- Critically assess the pros and cons of online financial and shopping services (Chapters 8 and 9)
- Develop financial education tools with a high degree of interactivity and relevance (Chapter 10)
- Provide appropriate interventions to financially “at-risk” college students (Chapter 11)
- Simplify investment decision-making through narrowed down options and automation (Chapter 13)
- Plan education and outreach methods according to gender-based learning preferences (Chapter 15)
- Understand the underlying motivations and cultural socialization of minority populations (Chapter 16)
• Understand relationships between health and wealth and discuss them with clients (Chapter 19)
• Develop materials and techniques to foster parent-child communication about finances (Chapter 21)
• Design, disseminate, and evaluate effective workplace financial education programs (Chapter 23)
• Identify common “teachable moments” and develop behaviorally-focused interventions (Chapter 24)

In summary, Handbook of Consumer Finance Research is a valuable publication for financial advisors, financial educators, and other practitioners who work at the “grass roots” level with clients and/or students. Some may choose to read the book cover to cover while others may read only a handful of its chapters or use it solely as a desk reference for needed information. For those who are so inclined, there are hundreds of publications cited as references that can be used as sources of additional information. Details about statistical analyses can be read...or not. The point is, any way this book is used, it will provide value to readers. The Handbook is, quite simply, one of the most comprehensive compilations of consumer finance research ever written. For that, all financial advisors and educators owe the chapter authors and editor a big debt of gratitude.

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The *Journal of Personal Finance* is unique in that it attempts to promote a symbiosis between academics and practicing professionals. To that end, it offers academics an outlet for publishing empirical research as well as other articles of interest to practicing financial professionals. Similarly, the *Journal* welcomes articles from financial advisors about client relationships, practice management, or firm operation or efficiencies. The overriding question being – how can I/we as authors “connect” this topic with the *Journal* readers – recognizing that the audience is comprised of national and international constituents who are, each in their own way, practitioners, teachers, and students of financial planning.

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Articles deal with all aspects of personal financial planning – theory; practice; practice management; financial services products; client relationship management; marketing; the economic, legal, or tax environment; or any other topic related to financial planning, counseling or services in the U.S. or internationally. The *Journal* is committed to advancing the profession and the practice of financial planning – both among those practicing as well as those teaching and studying in the classroom! Topics of interest to readers include:

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- Economic Issues and Trends – Domestic and International
- Technology Issues
- Planning For Client’s Special Needs
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- Investment Decision Management
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